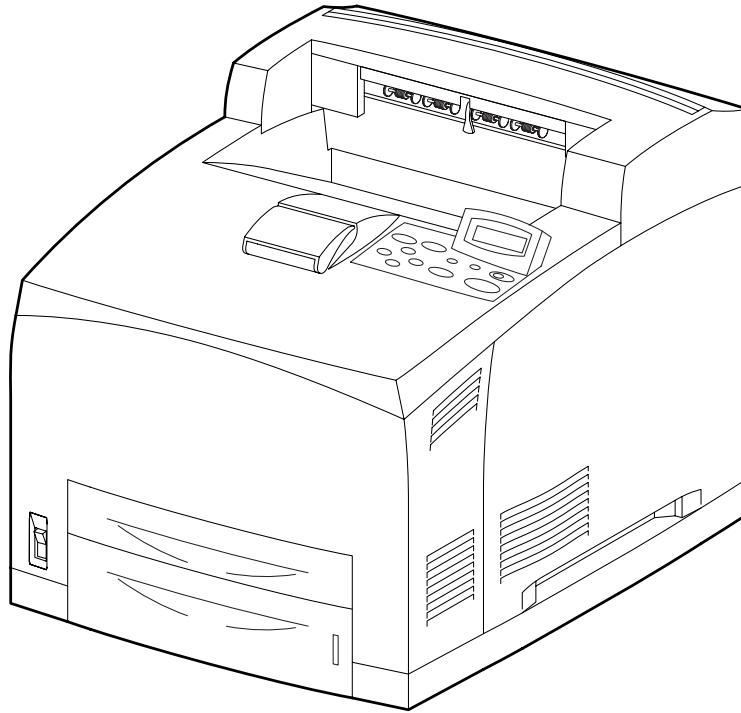


**Laser Printer
OKI B6500
Service Manual**



060810A

Cautions For Operation

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1. About This Manual

This manual is a standard service manual containing information required for maintenance of this laser printer (standard specifications).

2. Cautions, Warnings and Notes

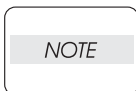
Maintenance operations requiring special cautions or additional information for procedures in this manual are presented as "Warning", "Caution", or "Note", according to their nature.



If instructions are not observed, death or serious injury may be caused.



If instructions are not observed, personal injury or physical damage to assets (including this laser printer) may result.



Particularly important essentials for procedures, steps, rules, etc.

Reference ***Incidental information to descriptions.***

3. Related documents

▼ Instruction manuals (standard manuals)

Describe operation and handling of this laser printer.

▼ Performance specifications

Describe in detail various specifications of this laser printer.

(In the event of discrepancy between this manual and the performance specifications, the performance specifications shall take preference.)

▼ Video interface specifications

Detailed video interface specifications for this laser printer

▼ Spare parts list

Information on maintenance parts (spare parts) for this laser printer

4. Safety

To prevent possible accidents during maintenance activities, you must pay attention to the "Warning" and "Caution" information in this manual.

Performing any dangerous operations, or procedures not included in this manual, should be avoided.

Occasionally, it may be required to perform some procedures not covered by this manual. These procedures should be performed carefully, always giving attention to safety.

4.1 Power source

Keep the power supply off during maintenance activities to prevent electric shock, burns and equipment damage. Keep the power plug disconnected during the maintenance operation. If it is necessary for the machine power to be switched ON for voltage measurements or other similar reasons, sufficient care should be given to prevent electric shock, by following the procedures in this manual.



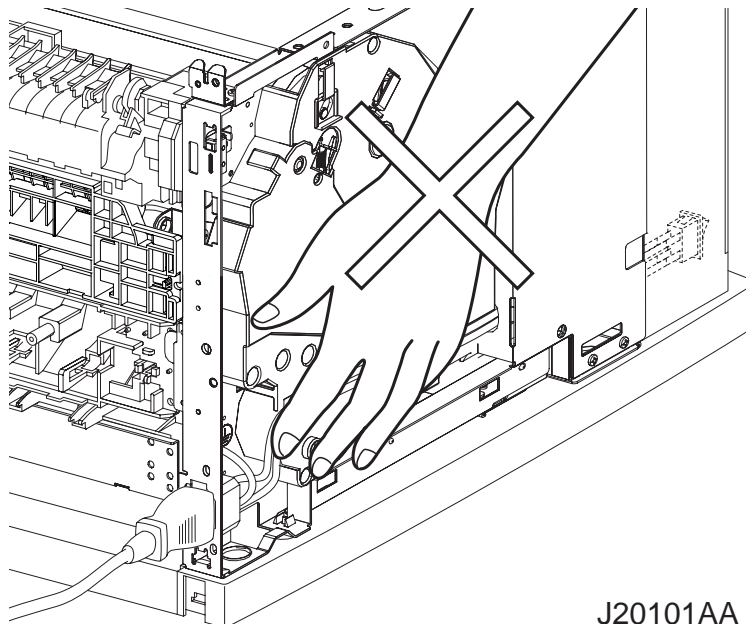
While the printer is ON, never touch live components.



Power is supplied to the power unit (LVPS ASSY) even while the printer is off. Never touch its live components.



Do not touch live components unless otherwise specified.



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4.2 Drive units

When servicing gears or other drive units, be sure to turn them OFF and disconnect the power plug from the receptacle. Whenever possible, drive them manually.



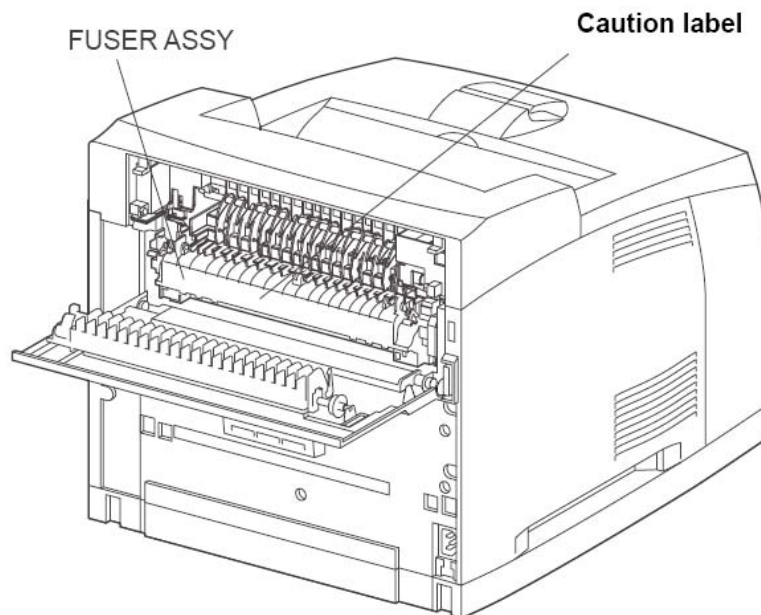
Never touch the gears or other moving parts while the printer is running.

4.3 High-temperature units

When servicing high-temperature units (removal, replacement, adjustment, etc.), be sure to turn them OFF to prevent burns, injuries and an electrical hazard. Remove the power plug from the receptacle and allow the unit to cool down before servicing.



Fusing units retain their heat after the power is removed. Wait at least 30 minutes after removing power before servicing.

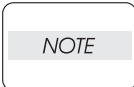


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4.4 Laser beams



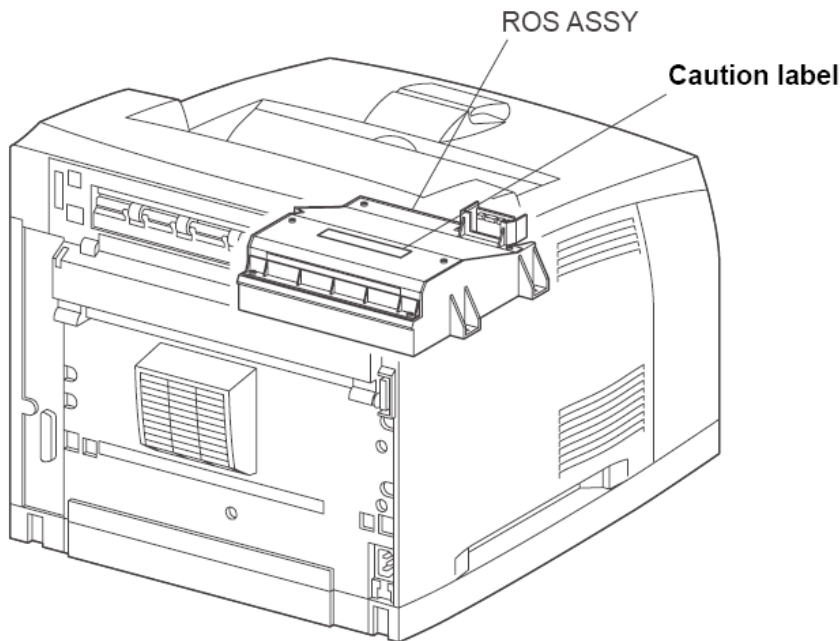
- ***Direct exposure to a laser beam can damage the eyes and cause blindness.***
- ***Never open a cover that has a laser warning label attached.***
- ***Before disassembling and reassembling this laser printer, be sure to turn the printer power OFF.***
- ***When servicing this laser printer while it is running, be sure to follow the procedures specified in this manual.***
- ***You should understand and exercise all safety precautions to prevent injuries when servicing equipment that uses a laser. Carefully follow procedures to prevent anyone in the area from exposure to the laser beam.***



Laser beams have the following characteristics:

- **Frequencies are higher than other beams (sun and electric bulbs) and phases are uniform so that high monochromatic and convergence performance can be obtained and thin beams of light can reach places at a long distance.**
- **Due to the high convergence, beams are highly concentrated in density and temperature, which is dangerous to human body.**

Reference: The frequency of the Laser used in this laser printer produces beams that are invisible.



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4.5 Warning/caution labels

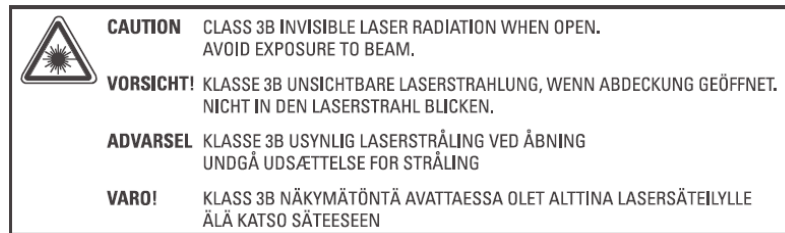
Warning labels and caution labels are attached to this laser printer to prevent accidents. These labels should be clear and easy to read. Check the labels for any damage such as peeling or stains when servicing the printer.

4.5.1 Caution label for high-temperature units



Hi Temp Label

4.5.2 Caution label for laser beams



Laser Beam Label

5. Installation

5.1 Power source

Do not plug too many leads into a single socket. Use a dedicated electric outlet and confirm that the power is within specifications.



Connect the single power cord to an electric outlet capable of supplying more power than the maximum power consumption of this laser printer.

5.2 Ground



Be sure the laser printer is properly grounded.

Be sure to connect the ground of this laser printer with one of the following:

- ***Grounding terminal of an electric outlet***
- ***Copper or the like which is embedded 650 mm or deeper in the ground***
- ***Grounding terminal for which the grounding work has been carried out***



Be sure not to establish a ground with the following:

- ***Gas pipe***
- ***Ground for telephone***
- ***Water pipe which is partially made from plastic***



When establishing a ground, be sure not to use the 2pin - 3pin conversion plug.

5.3 Installation location

- Ensure that there is adequate space for operating this printer.
- Install where the temperature and the humidity meet the following environmental specifications:

During operation:

5 to 35 degree C / 15 to 85% RH (70% RH at 35 degree C, 85% RH at 32 degree C).

No condensation

Not in operation:

-20 to 40 degree C / 5 to 85%

RH (A place with no condensation)

- Install in a flat place with the angle of 5 degrees or less.
- Install in a place with the illumination of 3000 Lux or less. (Avoid direct sunlight.)
- Avoid placing near a water system, a humidifier or fire, a dusty place, or a place which gets direct air from air conditioning.
- Avoid where volatile or flammable gas is generated.
- Avoid a poor ventilated place.
- Avoid an unstable and non-durable place.

5.4 Unpacking

5.4.1 Unpacking laser printer



The printer must be carried horizontally with two or more persons.



Extreme care must be taken to avoid personal injuries.

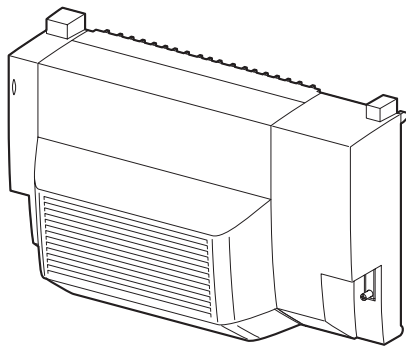
Unpack the carton and confirm that the part numbers of the laser printer and all components are correct. Ensure that all components are without damage.

- 1) Laser Printer main unit
- 2) 150 Paper Cassette
- 3) 550 Paper Cassette
- 4) EP CARTRIDGE
- 5) Power Cord
- 6) Instruction Manual

5.4.2 Unpacking Option Duplex

Unpack the carton and confirm that the part numbers of the Duplex Transport and all components are correct. Ensure that all components are undamaged.

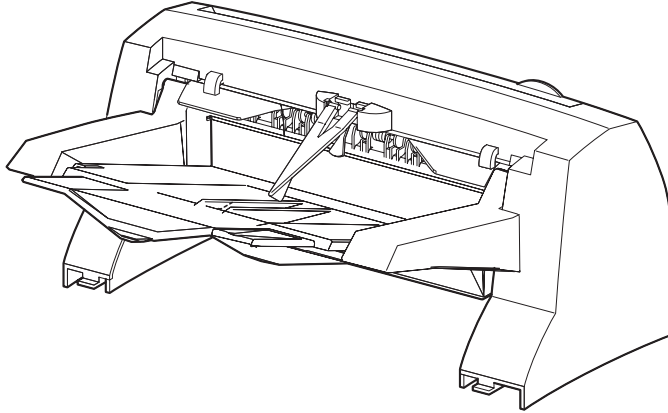
- 1) Option Duplex main unit



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5.4.3 Unpacking Option Face Up Tray

Unpack the carton and confirm that the part numbers of the Face Up Tray and all components are correct. Ensure that all components are undamaged.

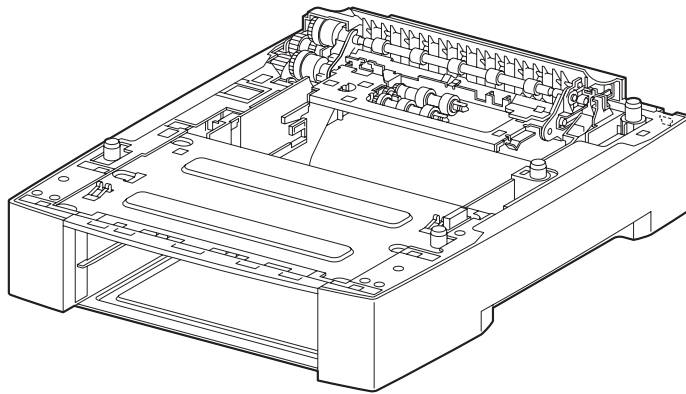


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5.4.4 Unpacking Option 550 Paper Feeder

Unpack the carton and confirm that the part numbers of the Option 550 Paper Feeder and all components are correct. Ensure that all components are undamaged.

- 1) Option 550 Paper Feeder main unit
- 2) Option 550 Paper Cassette
- 3) JOINT FEEDER (four pieces)



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5.5 Installation Procedures

5.5.1 Installing laser printer

For details, refer to the Instruction Manual supplied with the main unit.



When holding up the later printer, be sure to grasp the handles with both hands. Grasping a part other than the handles result in fall or damage of the laser printer.

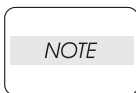


When holding up the later printer, bend your knees thoroughly to prevent lower back strain.



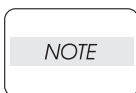
The protection sheets and the fixing materials, which are removed before the installation, are re-used when the later printer is moved to another place. Be sure to keep them.

- 1) Unpack the laser printer, and place it in an installation location after removing cushioning materials.
- 2) Confirm the attachments.
- 3) Peel off fixing tapes applied to the later printer.
- 4) Unpack the EP CARTRIDGE, then be sure to shake it seven to eight times holding both sides.



When removing the toner seal, draw it out straight and horizontally. After removal, be careful not to shake or give a shock to the EP CARTRIDGE.

- 5) Open the COVER OPEN, and install the EP CARTRIDGE.
- 6) Close the COVER OPEN.
- 7) Draw the paper tray, and press down the PLATE ASSY BTM to lock.
- 8) Place papers into the paper tray.



When placing papers into the paper tray, be careful for the followings:

- **Align four corners of papers to place.**
- **Adjust the paper guide to the paper size.**
- **Do not place papers over the capacity or over the upper-limit line of the paper tray.**

- 9) Push the paper tray into the laser printer to install.
- 10) Connect the power cord.
- 11) Turn on the power switch of the laser printer.
- 12) Try some test printings with each paper-feed trays to confirm that there is no problem.

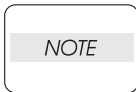
5.5.2 Installing Option Duplex

For details, refer to the Instruction Manual supplied with the main unit or Chapter 3 RRP 21.1 Option Duplex.



Before the installation, turn off the power and plug off the power cord.

- 1) Unpack the Option Duplex, remove cushioning materials, and confirm that all attachments are available.
- 2) Remove the COVER DUP and CONNECTOR COVER on rear of the laser printer.



Keep the removed COVER DUP and CONNECTOR COVER carefully.

- 3) Fit the hooks on the lower part of the Option Duplex with the holes on the rear of the laser printer to install.
- 4) Tighten the screws (two) on the lower part of the Option Duplex to fix securely.
- 5) Connect the power cord.
- 6) Turn on the power switch of the laser printer.
- 7) Try some test duplex-printings to confirm that there is no problem.

5.5.3 Installing Option Face Up Tray

For details, refer to the Instruction Manual supplied with the main unit.



Before the installation, turn off the power and plug off the power cord.

- 1) Unpack the Option Face Up Tray, remove cushioning materials, and confirm that all attachments are available.
- 2) Insert the front edge of the Option Face Up Tray into the slot on the upper-rear of the laser printer to install.
- 3) Connect the power cord.
- 4) Turn on the power switch of the laser printer.
- 5) Try running some test prints to eject onto the Option Face Up Tray and confirm that there are no problems.

5.5.4 Installing Option 550 Paper Feeder

For details, refer to the Instruction Manual supplied with the main unit or Chapter 3 RRP 20.1 Option 550 Paper Feeder.



Before the installation, turn off the power, plug off the power cord, and remove the paper tray from the laser printer.

- 1) Unpack the Option 550 Paper Feeder, remove cushioning materials, and confirm that all attachments are available.
- 2) Place the Option 550 Paper Feeder in an installation location.
- 3) Fit the holes on the bottom of the laser printer with the four positioning bosses of the Option 550 Paper Feeder, and place the laser printer on the Option 550 Paper Feeder.
- 4) Fix the laser printer and the Option 550 Paper Feeder securely with the JOINT FEEDERS (four pieces).
- 5) Push the paper tray into the laser printer completely to install.
- 6) Connect the power cord.
- 7) Turn on the power switch of the laser printer.
- 8) Try some test printings with the newly installed paper-feed tray to confirm that there is no problem.

6. Dismantlement

6.1 Dismantlement procedures

6.1.1 Dismantling laser printer and option units

For details, refer to the Instruction Manual or Chapter 3 Removal and Replacement Procedures.

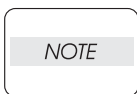
The dismantlement process is performed by following installation procedures in reverse sequence.



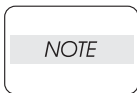
When holding up the later printer, be sure to grasp the handles with both hands. Grasping a part other than the handles results in fall or damage of the laser printer.



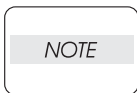
When lifting the later printer, bend your knees thoroughly to prevent lower back strain.



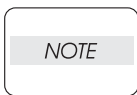
Be sure to remove the EP CARTRIDGE from the laser printer and put it into a plastic bag.



Be sure to re-use the protection sheets and fixing materials, which are removed during the installation.



Confirm that no attachment is missing.



Be sure to use the cushioning materials properly.

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NOTE

The FIP makes the assumption that the printer controller (PWBA ESS) is functioning normally. If the problem cannot be corrected by using the FIP, replace the printer controller with a new one and check for proper operation.

Any OEM with unique specifications, or the direct control of any operation by the printer controller, may cause the operation to be different from the description in this manual.

NOTE

Troubleshooting in this manual assumes use of Diag. tools (maintenance tools).

However, the troubleshooting procedures allow for the case where the Diag tools are not used. You can correct printer problems by using these procedures.

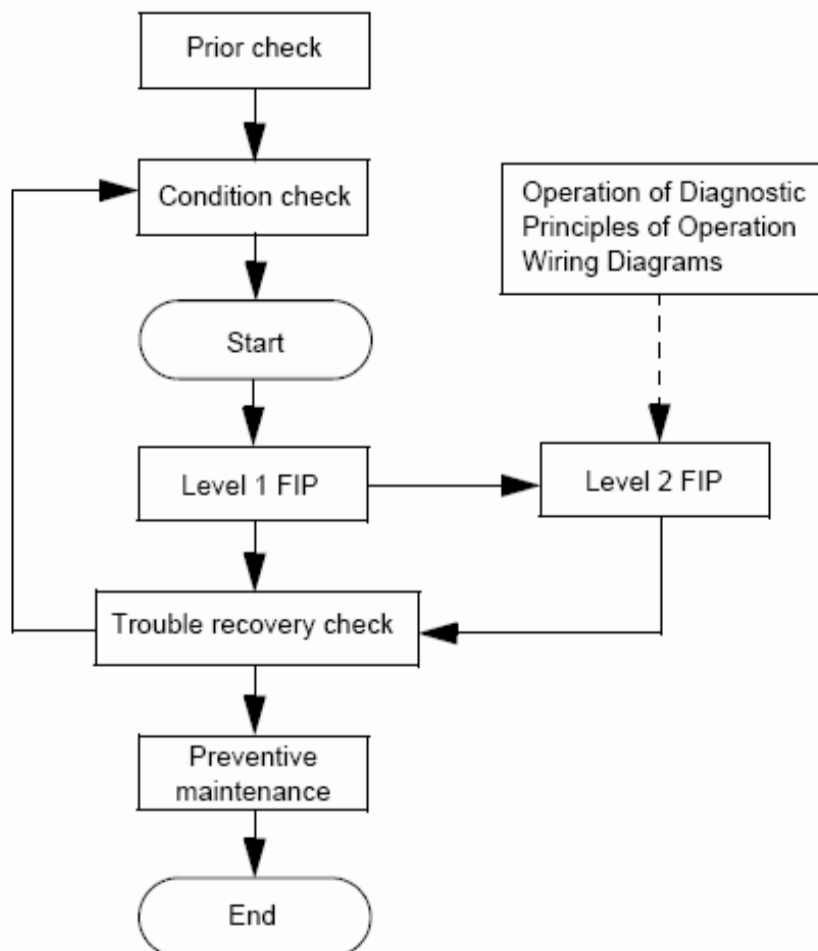
Chapter 1 Troubleshooting

1. Progressing with the Troubleshooting

After verifying the nature of the problem, proceed with the troubleshooting process efficiently, making use of the Fault Isolation Procedures (FIPs), Operation of Diagnostics (Chapter 2), Wire connecting diagrams (Chapter 7), and Principle of operation (Chapter 6).

1.1 Troubleshooting Flow Chart

Using the Troubleshooting Flow Chart, proceed as follows:



1.2 Preparatory Requirements

Be sure to check the following items before beginning the troubleshooting procedures:

- 1) Voltage of the power supply is within specifications (measure the voltage at the electric outlet).
- 2) Power cord is free from breakage, short-circuit, disconnected wire, or incorrect connection.
- 3) The laser printer is properly grounded.
- 4) The laser printer is not installed in a place subjected to extremes of temperature, humidity or rapid change of temperature.
- 5) The laser printer is not installed close to water service, humidifier, heat generating unit, or fire, in very dusty place, or a place exposed to air flow from the air conditioning system.
- 6) The laser printer is not installed in a place where volatile gas or inflammable gas is generated.
- 7) The laser printer is not installed under direct sunlight.
- 8) The laser printer is installed in a well-ventilated place.
- 9) The laser printer is installed on a strong, stable surface.
- 10) The paper used in the printer meets specifications (standard paper is recommended).
- 11) The laser printer is handled properly.
- 12) Parts which should be replaced periodically are replaced when the specified number of sheets have been printed.

1.3 Cautions for Service Operations

- 1) When servicing the printer, be sure to remove the power cord from the power outlet except when absolutely necessary.



Unless specifically indicated, whenever the printer power is ON, never touch any of the electrical components.

The power switch/inlet of the LVPS has voltage present even while the power supply is cut off. Never touch any of the electrical components.

- 2) When it is necessary to check a component(s) with covers removed and with the interlock and safety and power switches ON, remove the connector (P/J140) on the ROS ASSY.



When checking some parts with covers removed and with the interlock and safety and power switches ON, laser beams may be emitted from the ROS ASSY. Since it is dangerous, be sure to remove the connector (P/J140) while performing service.

- 3) When it is necessary to check a component(s) with the left cover removed and power ON, be sure to remove the HVPS connector (P/J31) while servicing the printer.



When checking some parts with the left cover removed and power ON, high voltage may be applied by the HVPS. Be sure to remove the connector (P/J31) on the HVPS. When connecting the connector (P/J31) on the HVPS according to the instructions of the FIP, never touch the HVPS or any of its parts.

- 4) When using Diagnostic tools or a meter to measure high voltage, be sure to keep the components covered unless specified.



When using Diagnostic Tool or a meter to measure high voltage, never touch parts of high voltage.

Be sure to follow the procedures in this manual.

- 5) When operating a drive unit using the Diagnostic or other tools, be sure to keep them covered unless otherwise specified.



Never touch the drive units when operating them using the Diagnostic or other tools. Be sure to observe the procedures in this manual.

- 6) Avoid burns by not touching any fusing components until they have had sufficient time to cool down.



- 7) Damage to sensitive electronic components should be avoided by grounding the body using a wrist band or other suitable Electrostatic Discharge (ESD) tools.

1.4 Cautions for FIP Use

- 1) The FIP makes the assumption that the printer controller (PWBA ESS) is functioning normally. If the problem cannot be corrected by using the FIP, replace the printer controller with a new one and check for proper operation.
If the trouble is not still corrected, replace the major parts and then related parts in succession and confirm according to the procedures of the "Initial check" and "Major check parts".
- 2) When troubleshooting using the FIP, parts substitution of the HVPS/MCU, FUSER ASSY, BTR ASSY or other parts may be necessary for fault isolation. Have these parts available in advance.
- 3) The initial checks in the FIP only checks items which are most likely to cause the problem and can be quickly eliminated.
- 4) Check both the major parts as well as any related sub-components in the initial checks.
- 5) When working with the printer, be sure to remove the power cord. If a check requires the power to be connected, never touch any live parts.
- 6) Connector condition is denoted as follows:
[P/J12]→Connector (P/J12) is connected.
[P12]→Plug side of the connector (P/J12) removed (except when attached directly to the board).
[J12]→Jack side of the connector (P/J12) removed (except when attached directly to the board).
- 7) [P/J1- 2(+)] and [P/J3-4(-)] in the FIP means taking a measurement with the plus side of the meter connected to [P/J1, Pin 2] and the minus side to [P/J3, Pin 4].
- 8) [P/J1 -> P/J2] in the FIP means measurement for all terminals corresponding between [P/J1] and [P/J2] as shown in the "Wire connecting diagram".
- 9) In [P/J1- 2 (+)] and [P/J3-4 (-)] in the FIP where voltage is measured, [P/J3-4 (-)] is always at the AG (analog ground), SG (signal ground), or RTN (return).
Therefore, after verifying ground between AGs, SGs, or RTNs respectively, the minus side can be connected to the PIN of AG, SG or RTN instead of [P/J3-4 (-)].
However, care should be taken not to mistake since [AG], [SG], and [RTN] are not on the same level.
- 10) Measure the voltage of small connectors with the special tool. Handle the tool with care, as the leading edge of the tool is pointed.
- 11) When measuring a voltage, ensure that the EP CARTRIDGE, BRT ASSY and paper tray are properly seated. Close the COVER TOP ASSY, FUSER ASSY, and COVER REAR and switch the printer power ON.
- 12) Voltages in the FIP are nominal. If the values fall within a tolerance of +/- 10%, they should be considered acceptable.
- 13) Parts which are routinely checked, as indicated in the FIP, and without any specific removal procedures, should be handled carefully.

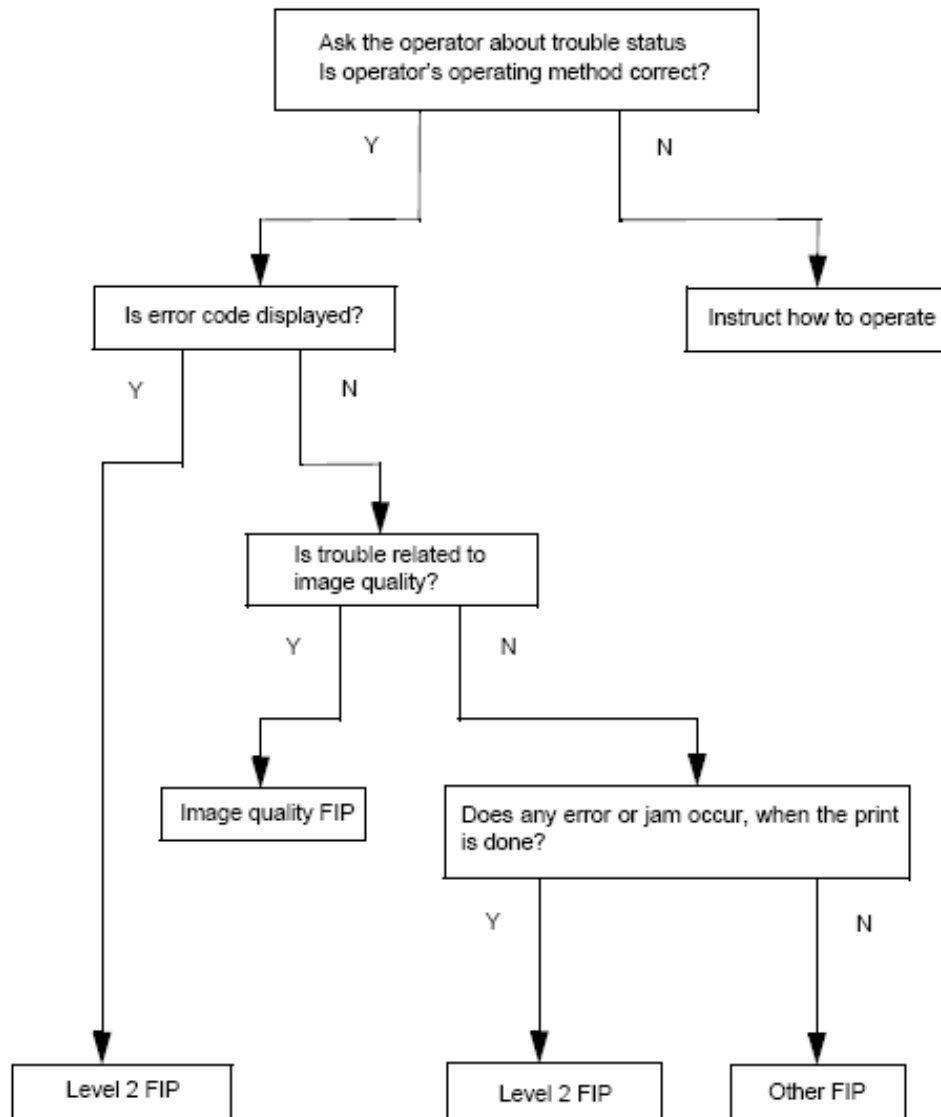
- 14) "Replacement" in the FIP indicates replacement of parts which are considered to be the source of trouble. These parts are sometimes components of assemblies containing them, or of a higher-level assembly. In such an instant, the higher-level assembly must be replaced.
- 15) In the FIP, the paper tray at the lower part of the printer is referred to as "Tray 1", and the second tray as "tray 2", and the first tray of Option 550 Paper Feeder as "Tray 3", and the second tray as "Tray 4".
- 16) Some checks in the FIP make decisions based on the availability or non-availability of Diagnostic tools (maintenance tools). Troubleshoot accordingly using the instructions in the FIP.
- 17) Some checks in the FIP make decisions based on specifications. Troubleshoot accordingly using the instructions in the FIP.

2. Level 1 FIP

2.1 Level 1 FIP

The level 1 FIP is the first step for problem resolution. The level 1 FIP isolates the presence of various troubles including error codes. The level 2 FIP provides a guide for proceeding with the troubleshooting.

2.2 Flow of Level 1 FIP



2.3 Error/Status Code List

NOTE

For information about the following FIP items described in “FIP to be referenced” column in the following table, refer to the following:

FIP1.1 through 45: Printer

FIP2.1 through 11: Option Duplex

FIP3.1 through 15: Option OCT

FIP4.1 through 12: Option 550 Paper Feeder

Status Code	Error Contents	Error Description	FIP to be referenced
STATUS 1-5	Cassette Fail	- Paper size is not specified.	FIP1.13 FIP4.1
STATUS 1-6	Xero Fail	- EP CARTRIDGE is not installed, or incorrectly installed. - EP CARTRIDGE out of specifications is installed.	FIP1.11
STATUS 2-1	NVM Abnormality	- Failure of the NVRAM occurred at powering on. - Write error to the NVRAM occurred.	FIP1.1
STATUS 2-2	Fan Motor Abnormality	- Abnormal rotation or other failure of the FAN MAIN or FAN SUB occurred.	FIP1.4
STATUS 2-3	Main Motor Abnormality	- Rotation of MAIN MOTOR does not reach the specified speed.	FIP1.5
STATUS 2-4	ROS Motor Abnormality	- Interval of /BD signal after ROS Motor starts is delayed from the specified value. - Interval of /BD signal became delayed from the specified value after it reached the specified value. - Laser beam output is not the specified level.	FIP1.2
STATUS 2-6	Fuser Abnormality	- Fuser does not reach the specified temperature after the specified time. - Fuser Lamp lights for ten seconds or more in standby. - Fuser temperature became 125 °C or lower during printing. - Fuser temperature became 220 °C or higher. -The thermistor (thermal sensor) have break.	FIP1.3
STATUS 3-1	JS0	STATUS 3-1 to 3-5 indicates JAM by combination of Table 1-1.	-
STATUS 3-2	JS1		
STATUS 3-3	JS2		
STATUS 3-4	JS3		
STATUS 3-5	JS4		

Status Code	Error Contents	Error Description	FIP to be referenced
STATUS 3-6	Paper Size Mismatch	- Paper size detected by the Paper Size Switch or set in the NVRAM does not match the paper length obtained from ON time of Regi Sensor at feeding.	FIP1.12
STATUS 15-1	Xero Warning	- Remaining toner in EP CARTRIDGE became low.	FIP1.16
STATUS 15-3	Near end of paper in Tray 4	- Remaining paper in Tray 4 became low.	FIP4.3
STATUS 15-4	Near end of paper in Tray 3	- Remaining paper in Tray 3 became low.	FIP4.3
STATUS 15-5	Near end of paper in Tray 2	- Remaining paper in Tray 2 became low.	FIP1.15
STATUS 15-6	Fuser Life Warning	- Fuser printed more than 200,000 sheets of paper.	FIP1.17
STATUS 16-1	Face Up Tray Fail	- Face Up Tray is not correctly installed in Duplex or OCT mode.	FIP1.44
STATUS 16-3	Option Tray Unit Fail	- Option Tray is not installed when Option Tray is selected.	FIP4.4
STATUS 16-4	Full Stack (500 Paper Exit)	- 500 Paper Exit became Full Stack.	FIP1.45
STATUS 16-5	Full Stack (OCT)	-Option OCT became Full Stack.	FIP3.6
STATUS 17-1	Top/Rear Cover Open	-COVER OPEN or COVER REAR 500 is open.	FIP1.6
STATUS 17-2	OCT Cover Open	- Cover of Option OCT is open.	FIP3.1
STATUS 17-3	Duplex Cover Open	-Cover of Option Duplex is open.	FIP2.1
STATUS 17-4	Inappropriate Opt FDR	- Inappropriate Option Feeder is detected.	FIP4.5
STATUS 17-5	OCT Unit Fail	- Option OCT is not installed when OCT mode is selected.	FIP3.2 FIP3.7
STATUS 17-6	Duplex Unit Fail	- Option Duplex removed after powering on.	FIP2.2 FIP2.7
STATUS 21-1	Illegal Size (Duplex/OCT)	- Paper size that is not supported in Duplex or OCT mode is selected.	FIP2.6 FIP3.5
STATUS 21-3	NO Paper in Tray 4	-No paper in Tray 4	FIP4.2
STATUS 21-4	NO Paper in Tray 3	-No paper in Tray 3	FIP4.2
STATUS 21-5	NO Paper in Tray 2	-No paper in Tray 2	FIP1.14
STATUS 21-6	NO Paper in Tray 1	-No paper in Tray 1	FIP1.14

JS4	JS3	JS2	JS1	JS0	Contents of Jam	Error Description	FIP to be referred
1	0	0	0	1	Exit Jam 1	Paper Jam/Exit -When the paper was not fed to Exit Sensor within the specified time. - When Exit Sensor turned ON in warming up.	FIP1.8
1	1	0	0	1	Exit Jam 2	Paper Jam/Exit - When paper was not fed to Exit Sensor within the specified time after SENSOR REGI OFF.	FIP1.8
0	0	0	0	1	Exit Jam 3	Paper Jam/Exit - When the paper was fed out from Exit Sensor earlier than the specified time.	FIP1.8
0	0	0	1	0	Feed Jam 1 (Early Feed Jam)	Paper Jam/Tray to Regi -When the paper was fed to Regi Sensor earlier than the specified time. -Paper interval became narrow than the specified time because of the two or more papers are fed at a time. -Paper size error. The paper longer than Legal 14" is used.	FIP1.9
0	1	0	1	0	Feed Jam 2 (Misfeed Jam)	Paper Jam/Misfeed -When the paper did not reach Regi position within the specified time.	FIP1.10
0	1	0	1	1	Reg. Jam 1	Paper Jam/Regi to Fuser -When the paper did not reach Fuser from Regi position within the specified time.	FIP1.7
1	0	0	1	1	Reg. Jam 2	Paper Jam/Regi to Fuser - When Regi Sensor turned ON in warming up.	FIP1.7
0	0	1	0	0	Duplex Jam 1	Paper Jam/Dup to Regi -When the paper reached Regi position from Duplex Sensor earlier than the specified time.	FIP2.4
0	1	1	0	0	Duplex Jam 2	Paper Jam/Exit to Dup -When the paper did not reach Duplex Sensor within the specified time.	FIP2.3
1	0	1	0	0	Duplex Jam 3	Paper Jam/Dup to Regi -When the paper was not fed to Duplex Sensor within the specified time. - When Duplex Sensor turned ON in warming up.	FIP2.4
1	1	1	0	0	Duplex Jam 4 (Misfeed Jam)	Paper Jam/Misfeed -When the paper did not reach Regi position from Duplex Sensor within the specified time.	FIP2.5
0	1	1	0	1	OCT Jam 1	Paper Jam/Exit to OCT - When the paper did not reach to OCT Sensor from Exit Sensor within the specified time.	FIP3.3
1	0	1	0	1	OCT Jam 2	Paper Jam/OCT -When the paper was not fed to OCT Sensor within the specified time. - When OCT Sensor turned ON in warming up.	FIP3.4

3. Level 2 FIP

3.1 Level 2 FIP

The Level 2 FIP is the diagnostic procedure to sort various troubles in addition to the error codes. When troubleshooting, executing the steps given in the FIP or checkout procedure allows you to quickly find the cause of a problem.

4. Error Code FIP

4.1 Level 1 FIP

FIP1.1 NVM Error

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19)		
1	Does Error occur when the power is turned ON?	Go to step 4.	Go to step 2.
2	Does Error still occur when the power is turned OFF and ON again?	Go to step 4.	Go to step 3.
3	Does Error still occur after several ON/OFF procedures of the power?	Go to step 4.	End of work *1
4	Checking HVPS/MCU non-volatile memory setup mode Is non-volatile memory setup mode accessible? Check using Chapter 2 Diagnostic [ADJUSTMENT PARAMETER INITIALIZE MODE].	Go to step 5.	Replace HVPS/MCU. (RRP12.10)
5	Checking NV RAM for data setup Are all NVRAM data set appropriately? Check using Chapter 2 Diagnostic [ADJUSTMENT PARAMETER INITIALIZE MODE].	Go to step 7.	Go to step 6.
6	Checking Error after changing HVPS/MCU data setup Change NV RAM data to the correct setup value, and then turn the power ON again. Does Error still occur?	Replace HVPS/MCU, then go to step 7. (RRP12.10)	End of work
7	Checking after replacing HVPS/MCU Does Error occur?	Go to FIP1.42 Electrical Noise.	End of work

*1: Though some kind of foreign noise would be possible cause, go to [FIP1.42 Electrical Noise] and check, to make sure.

FIP1.2 ROS Error

Step	Check	Yes	No
	Possible causes: ROS ASSY (PL8.1.1) HVPS/MCU (PL12.1.19) EP CARTRIDGE HARNESS ASSY ROS (PL8.1.2) LVPS (PL12.1.5)		
1	Checking NVRAM for data setup value. Are the values of NV03 (resolution) and the value of NV04 (Laser Diode output) set at the initial setup value in the factory? Check using Chapter 2 Diagnostic [ADJUSTMENT PARAMETER INITIALIZE MODE].	Go to FIP1.26 ROS ASSY.	Set NV03 and NV04 to factory setup, and then check again. If Error still occurs, go to FIP1.26 ROS ASSY.

FIP1.3 Fuser Error

Step	Check	Yes	No
	Possible causes: FUSER ASSY (PL8.1.20) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) HARNESS ASSY FUSER (PL8.1.17) HARNESS ASSY LVPS (PL12.1.1)		
1	Checking the thermistor for operation. Does Error occur soon after the power is turned ON? Error occurs as soon as the power is turned ON, or just after the time when a short warm up period elapsed.	Replace FUSER ASSY. (RRP8.8)	Go to FIP1.27 FUSER ASSY.

FIP1.4 Fan Error

Step	Check	Yes	No
	Possible causes: FAN MAIN (PL1.1.14) FAN SUB (PL8.1.5) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19)		
1	Checking FAN MAIN for rotation (1). Does FAN MAIN rotate, when the power is turned ON?	Go to step 2.	Go to step 5.
2	Checking FAN SUB for rotation (1). Does FAN SUB rotate, when the power is turned ON?	Go to step 3.	Go to step 9.
3	Checking FAN MAIN for rotation (2). Does FAN MAIN rotate in high-speed? Check using Chapter 2 Diagnostic [Fan Motor, High Speed Test].	Go to step 4.	Go to step 5.
4	Checking FAN SUB for rotation (2). Does FAN SUB rotate in high-speed? Check using Chapter 2 Diagnostic [Fan Motor, High Speed Test].	Replace HVPS/ MCU, and watch FUN SUB for a while. (RRP12.10)	Go to step 9.
5	Checking the power to FAN MAIN. Is FAN MAIN connected correctly, and is the voltage across P/J24-18(+) and P/J24-17(-), 24 VDC? (12 VDC, when half-speed)?	Go to step 6.	Go to step 7.
6	Checking the FAN ALARM signal (1). Is the voltage across P/J24-17(+) and P/J24-16(-), 0.82 VDC or more?	Replace FAN MAIN. (RRP12.6)	Replace HVPS/ MCU. (RRP12.10)
7	Checking after replacing FAN MAIN Replace the FAN MAIN. Does FAN Error occur when the power is turned ON?	Go to step 8.	End of work
8	Checking after replacing LVPS Replace the LVPS. Does FAN Error occur when the power is turned ON?	Replace HVPS/ MCU. (RRP12.10)	End of work
9	Checking the power to FAN SUB Is FAN SUB connected correctly, and is the voltage across P/J27-19(+) and P/J27-18(-), 24 VDC? (12 VDC, when half-speed)?	Go to step 10.	Go to step 11.
10	Checking the FAN ALARM signal Is the voltage across P/J27-18(+) and P/J27-17(-), 0.82 VDC or more?	Replace FAN SUB (RRP8.2)	Replace HVPS/ MCU. (RRP12.10)
11	Checking after replacing FAN SUB Replace the FAN SUB. Does FAN Error occur when the power is turned ON?	Go to step 12.	End of work
12	Checking after replacing LVPS Replace the LVPS. Does FAN Error occur when the power is turned ON?	Replace HVPS/ MCU. (RRP12.10)	End of work

FIP1.5 Main Motor Error

Step	Check	Yes	No
	Possible causes: MAIN MOTOR (PL11.1.2) GEAR ASSY HOUSING (PL11.1.3) GEAR ASSY PLATE (PL11.1.10) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19)		
1	Checking MAIN MOTOR installation Are MAIN MOTOR, GEAR ASSY HOUSING and GEAR ASSY PLATE installed correctly?	With tool Go to step 2. Without tool Go to step 3.	Reinstall obstructive parts.
2	Checking MAIN MOTOR for operation Does the MAIN MOTOR rotate, and each gear rotate normally? Check using Chapter 2 Diagnostic [Main Motor Test]. Remove COVER LEFT (PL1.1.6) to check.	Replace HVPS/MCU. (RRP12.10)	Go to step 3.
3	Checking GEAR ASSY HOUSING and GEAR ASSY PLATE for operation. Does each gear rotate normally? Rotate and check each gear of GEAR ASSY HOUSING and GEAR ASSY PLATE.	Go to FIP1.25 MAIN MOTOR.	Replace the obstructive parts.

FIP1.6 Cover Error

Step	Check	Yes	No
	Possible causes: INTERLOCK S/W 24V (PL8.1.11) INTERLOCK S/W 5V (PL8.1.12) INTERLOCK S/W REAR (PL12.1.7) SWITCH I/L ASSY (PL1.1.11) COVER OPEN (PL1.1.2) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Checking COVER OPEN and COVER REAR Are the tabs to push down INTERLOCK S/W 24V, 5V, and REAR, and SWITCH I/L ASSY damaged? Open COVER OPEN and COVER REAR to check.	Replace COVER OPEN or COVER REAR.	With tool Go to step 2. Without tool Go to FIP1.32,33,34, and 35 INTERLOCK S/W.
2	Checking INTERLOCK S/W 24V and 5V on function Does the number on Sensor/Switch Check increase by one, every time INTERLOCK S/W is pushed while pressing down the SWITCH I/L ASSY with a finger? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Go to step 3.	Go to FIP1.32 and 33 INTERLOCK S/W.
3	Checking INTERLOCK REAR on function Does the number on Sensor/Switch Check increase by one, every time INTERLOCK S/W REAR is pushed while pressing down the INTERLOCK S/W 24V with a finger? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Go to step 4.	Go to FIP1.34 INTERLOCK S/W.
4	Checking SWITCH I/L ASSY on function Does the number on Sensor/Switch Check increase by one, every time SWITCH I/L ASSY is pushed while pressing down both INTERLOCK S/W 24V and 5V with the finger? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to FIP1.33 and 35 INTERLOCK S/W.

FIP1.7 FIP Paper Jam/Regi to Fuser

Step	Check	Yes	No
	Possible causes: FUSER ASSY (PL8.1.20) HVPS/MCU (PL12.1.19) CLUTCH REGI (PL5.1.23) BTR ASSY (PL8.1.21) EP CARTRIDGE GEAR ASSY HOUSING (PL11.1.3) HARNESS ASSY FUSER (PL8.1.17) LVPS (PL12.1.5) 150 FEEDER ASSY (PL5.1.1) GUIDE ASSY CRU R (PL8.1.25)		
1	Checking the paper condition Is the paper in the tray crumpled or damaged?	Replace the paper with a new and dry one.	Go to step 2.
2	Checking paper size setup Does the paper size in use match the size setup by GUIDE ASSY END or by the Driver on the PC?	Go to step 3.	Replace the paper, or change the paper size set.
3	Checking paper position (1) Does the front end of paper touch with Actuator Exit in FUSER ASSY? Open COVER OPEN (PL1.1.2) to check.	Go to step 7.	Go to step 4.
4	Checking paper position (2) Does the front end of paper go through the Heat Roll / Pressure Roll in FUSER ASSY? Remove EP CARTRIDGE to check.	Replace HVPS/MCU. (RRP12.10)	Go to step 5.
5	Checking paper position (3) Does the front end of paper go through BTR ASSY?	Go to step 15.	Go to step 6.
6	Checking paper position (4) Does the front end of paper go between ROLL REGI METAL (PL5.1.34) and ROLL REGI RUBBER (PL5.1.12)?	Go to step 14.	Go to step 19.
7	Checking Actuator Exit for operation Does Actuator Exit move smoothly, when touching Actuator Exit with a finger inserted from the exit of FUSER ASSY, and moving it up and down? Remove EP CARTRIDGE to check.	With tool Go to step 8. Without tool Go to step 9	Replace FUSER ASSY. (RRP8.8)
8	Checking Exit Sensor for operation (1) Does the number of Sensor/Switch Check increase, every time Actuator Exit is pushed and released? Check using Chapter 2 Diagnostic [Sensor /Switch Check]. Remove EP CARTRIDGE to check.	Replace HVPS/MCU. (RRP12.10)	Go to step 10.
9	Checking Exit Sensor for operation (2) Is the voltage across P/J46-5(+) and P/J46-4(-) on LVPS, 0VDC when Actuator Exit is pushed, and 3.3VDC when released? Remove EP CARTRIDGE to check.	Replace LVPS. (RRP12.3)	Go to step 10.

Step	Check	Yes	No
10	Checking HARNESS ASSY FUSER for continuity Warning; Start the operation after the FUSER ASSY have cooled down. Disconnect P/J46 from LVPS. Remove FUSER ASSY. (RRP8.8) Is there continuity between P/J46 and P/J4647?	Go to step 11.	Replace HARNESS ASSY FUSER.
11	Checking the power to Exit Sensor Is the voltage across P/J46-3(+) and P/J46-4(-), 3.3 VDC?	Go to step 13.	Go to step 12.
12	Checking LVPS for continuity Is there continuity between P/J41-1 and P/J46-3?	Go to FIP1.24 LVPS.	Replace LVPS. (RRP12.3)
13	Checking FUSER ASSY roll for operation Warning; Start the operation after the FUSER ASSY have cooled down. Remove FUSER ASSY. (RRP8.8) Do the gear and the roll of FUSER ASSY rotate smoothly? Turn the gear of the heater roller of FUSER ASSY with a finger to check.	Replace LVPS. (RRP12.3)	Replace FUSER ASSY. (RRP8.8)
14	Checking BTR ASSY for shape Remove BTR ASSY. (RRP8.10) Are there any abnormalities in BTR ASSY? Check the shape, shaft and Bearing BTR of BTR ASSY.	Go to step 15.	Replace BTR ASSY. (RRP8.10)
15	Checking GUIDE ASSY CRU R Is GUIDE ASSY CRU R damaged or stained?	Clean or replace GUIDE ASSY CRU R. (RRP8.13)	Go to step 16.
16	Checking GUIDE ASSY CRU R for continuity Remove GUIDE ASSY CRU R. (RRP8.13) Is each harness continuous?	Go to step 17.	Replace GUIDE ASSY CRU R. (RRP8.13)
17	Checking after replacing HVPS/MCU Replace HVPS/MCU. (RRP12.10) Carry out a test printing. Does the same trouble occur? Check by Chapter 2 Diagnostic [TEST PATTERN MODE MENU].	Go to step 18.	End of work
18	Checking after replacing EP CARTRIDGE Replace EP CARTRIDGE. Does the similar trouble occur, when the test printing is done? Check using Chapter 2 Diagnostic [TEST PATTERN MODE MENU].	Go to step 19.	End of work
19	Checking ROLL REGI METAL (PL5.1.34) and ROLL REGI RUBBER (PL5.1.12) for operation Do ROLL REGI METAL and ROLL REGI RUBBER rotate smoothly? Turn ROLL REGI METAL and ROLL REGI RUBBER with a finger to check.	Go to step 20.	Replace 150 FEEDER ASSY. (RRP5.1)

Step	Check	Yes	No
20	Checking GLUTCH REGI for function Does CLUTCH REGI function appropriately? Check using Chapter 2 Diagnostic [Regi. Roll Clutch Test].	Go to step 21.	Go to FIP1.38 CLUTCH REGI.
21	Checking GEAR ASSY HOUSING operation (1) Remove EP CARTRIDGE. Install COVER ASSY and close it. Does each gear rotate normally? Check using Chapter 2 Diagnostic [Main Motor Test].	Replace HVPS/ MCU. (RRP12.10)	Go to step 22.
22	Checking GEAR ASSY HOUSING operation (2) Does each gear rotate smoothly? Remove GEAR ASSY HOUSING to check. (RRP11.3)	Replace GEAR ASSY HOUS- ING. (RRP11.3)	Replace the trouble gear.

FIP1.8 Paper Jam/Exit

Step	Check	Yes	No
	Possible causes: FUSER ASSY (PL8.1.20) HVPS/MCU (PL12.1.19) HARNESS ASSY FUSER (PL8.1.17) MOTOR ASSY EXIT (PL10.1.15) LVPS (PL12.1.5) ROLL PINCH EXIT (PL10.1.23) 500 EXIT ASSY (PL10.1.2) 150 PAPER CASSETTE (PL2.1.50) 550 PAPER CASSETTE (PL4.1.50)		
1	Checking the paper condition. Is the paper crumpled, damaged or damp?	Replace the paper with a new and dry one.	Go to step 2.
2	Checking the paper size setup. Does the paper size in use match the size setup by GUIDE ASSY END or by the driver on the PC?	Go to step 3.	Replace the paper, or set up the paper size correctly.
3	Does Error occur when the power is turned ON?	Go to step 4.	Go to step 6.
4	Checking the paper in Actuator Exit. Is there any remaining paper in Actuator Exit?	Remove the paper, and go to step 5.	Go to step 8.
5	Does Error occur when the power is turned ON?	Go to step 8.	Go to step 6.
6	Run a test print. Does Error occur? Check using Chapter 2 Diagnostic [TEST PATTERN MODE MENU].	Go to step 7.	End of work
7	Checking ROLL PINCH EXIT. Remove COVER TOP ASSY (PL1.1.7). (RRP1.4) Is ROLL PINCH EXIT not damaged, and rotating smoothly? Does SPRING PINCH EXIT attach? Turn ROLL EXIT with a finger to check.	Go to step 8.	Replace ROLL PINCH EXIT.
8	Checking ROLL EXIT (PL10.1.12) for rotation. Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Turn the power ON. Does ROLL EXIT rotate smoothly during warm up?	Go to step 9.	500 EXIT ASSY. (RRP10.2)
9	Checking Actuator Exit for operation. Remove EP CARTRIDGE. Does Actuator Exit move smoothly, when touching Actuator Exit with a finger inserted from the exit of FUSER ASSY, and moving it up and down?	With tool Go to step 10. Without tool Go to step 11.	Replace FUSER ASSY. (RRP8.8)
10	Checking Exit Sensor for operation (1). Remove EP CARTRIDGE. Does the number of Sensor/Switch Check increase by one, every time Actuator Exit is pushed and released? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to step 11.

Step	Check	Yes	No
11	Checking Exit Sensor for operation (2). Remove EP CARTRIDGE. Is the voltage across P/J46-5(+) and P/J46-4(-) on LVPS, 0VDC when Actuator Exit is pushed, and 3.3VDC when released?	Go to step 14.	Go to step 12.
12	Checking the power to Exit Sensor. Is the voltage across P/J46-3(+) and P/J46-4(-), 3.3VDC?	Replace LVPS. (RRP12.3)	Go to step 13.
13	Checking LVPS for continuity. Is there continuity between P/J41-1 and P/J46-3?	Go to FIP1.24 LVPS.	Replace LVPS. (RRP12.3)
14	Checking HARNESS ASSY LVPS for continuity. Disconnect P/J11 on HVPS/MCU. Disconnect P/J41 on LVPS. Is there continuity between J11-10 and J41-7?	Replace LVPS. (RRP12.3)	Replace HAR- NESS ASSY LVPS.

FIP1.9 Paper Jam/Tray to Regi

Step	Check	Yes	No
	Possible causes: 150 FEEDER ASSY (PL5.1.1) 150 PAPER CASSETTE (PL2.1.50) SENSOR REGI (PL5.1.30) ACTUATOR B (PL5.1.17) CHUTE ASSY FDR1 (PL5.1.3) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) CHUTE ASSY FDR2 (PL7.1.21, PL20.2.2) CLUTCH ASSY PH (PL5.1.21, PL7.1.20, PL20.2.21) ROLL ASSY RETARD (PL2.1.2, PL4.1.2, PL20.3.2) CLUTCH PR-REGI (PL20.2.22) 550 FEEDER OPION (PL20.2.1) 550 FEEDER ASSY (PL7.1.10) 550 PAPER CASSETTE (PL4.1.50)		
1	Checking the paper size setup. Does the paper size in use match the size setup by GUIDE ASSY END or by the driver on the PC?	Go to step 2.	Replace the paper, or change the paper size setup.
2	Does Error occur when the power is turned ON?	Go to step 3.	Go to step 5.
3	Checking the paper at ACTUATOR B. Does the paper remain at ACTUATOR B of SENSOR REGI?	Remove the paper, and go to step 4.	Go to FIP1.28 SENSOR REGI.
4	Does Error occur when the power is turned ON?	Go to FIP1.28 SENSOR REGI.	Go to step 5.
5	Checking ROLL ASSY RETARD. Is ROLL ASSY RETARD not damaged, and installed correctly? Check the operation of it assembled each Paper Cassette.	Go to step 6.	Replace ROLL ASSY RETARD (RRP2.1, 4.1, 20.17)
6	Run a test print. Does Error occur, when the test printing is performed with the paper supplied from the Tray 1 or Tray 2? With the Option 550 Paper Feeder is installed, does Error occur, when the test printing is performed with the paper supplied from the Tray 3 or Tray 4? Check using Chapter 2 Diagnostic [TEST PATTERN MODE MENU].	Go to step 7.	End of work
7	Checking the paper position Remove EP CARTRIDGE. Does the front end of paper touch Actuator B of SENSOR REGI?	Go to step 8.	Go to FIP1.28 SENSOR REGI.
8	Checking a tray feeding the paper When running a test print, is the paper supplied from Tray 1 or Tray 2?	With tool Go to step 9. Without tool Go to step 10.	Go to step 11.
9	Checking CLUTCH ASSY PH for operation Does CLUTCH ASSY PH operate normally? Check using Chapter 2 Diagnostic [Tray1/2 Feed Clutch Test].	Go to step 11.	Go to FIP1.39 CLUTCH ASSY PH.

Step	Check	Yes	No
10	Checking CHUTE ASSY FDR1/2 (PL5.1.3, PL7.1.21) for operation Does each gear and roller of CHUTE ASSY FDR1/2 rotate smoothly? Turn each gear and roller with a finger to check.	Go to step 11.	Replace CHUTE ASSY FDR1/2.
11	Checking a paper feeding tray When running a test print, is the paper supplied from Tray 3 or Tray 4?	With tool Go to step 12. Without tool Go to step 13.	Check if the paper is set, and then go to step 8.
12	Checking CLUTCH ASSY PH for operation Does CLUTCH ASSY PH operate normally? Check using Chapter 2 Diagnostic [Option Tray1/2 Feed Clutch Test].	Go to step 14.	Go to FIP1.39 CLUTCH ASSY PH.
13	Checking 550 FEEDER OPTION for operation Does each gear and roller of 550 FEEDER OPTION rotate smoothly? Turn each gear and roller with a finger to check.	Go to step 15.	Replace Option 550 Paper Feeder.
14	Checking CLUTCH PR-REGI for operation Does CLUTCH PR-REGI operate normally? Check using Chapter 2 Diagnostic [Option Feeder1/2 Turn Clutch Test].	Replace HVPS/MCU. (RRP12.10)	Go to FIP4.12 CLUTCH PR-REGI.
15	Checking ROLL PINCH TURN (PL20.2.14) for operation Does ROLL PINCH TURN rotate smoothly? Turn ROLL PINCH TURN with a finger to check.	Replace HVPS/MCU. (RRP12.10)	Replace ROLL ASSY TURN (RRP20.13).

FIP1.10 Paper Jam/Misfeed

Step	Check	Yes	No
	Possible causes: 150 FEEDER ASSY (PL5.1.1) 150 PAPER CASSETTE (PL2.1.50) SENSOR REGI (PL5.1.30) ACTUATOR B (PL5.1.17) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19) CLUTCH REGI (PL5.1.23) CHUTE ASSY FDR1 (PL5.1.3) GEAR ASSY HOUSING (PL11.1.3) SENSOR NO PAPER (PL5.1.38, PL7.1.38, PL20.2.33) CHUTE ASSY FDR2 (PL7.1.21, PL20.2.2) PLATE ASSY BTM (PL2.1.10, PL4.1.10, PL20.3.10) ROLL ASSY RETARD (PL2.1.2, PL4.1.2, PL20.3.2) CLUTCH ASSY PH (PL5.1.21, PL7.1.20, PL20.2.21) ROLL ASSY TURN (PL20.2.14) CLUTCH PR-REGI (PL20.2.22) 550 FEEDER ASSY (PL7.1.10) 550 PAPER CASSETTE (PL4.1.50)		
1	Does Error still occur, after removing all the jamming paper from the feeding tray?	Go to step 2.	Go to FIP1.14 Paper out / Tray 1, 2.
2	Checking paper condition Is the paper curled, damaged or damp?	Replace the paper with a new and dry one	Go to step 3.
3	Checking the paper size setup Does the paper size in use match the size setup by GUIDE ASSY END or by the driver on the PC?	Go to step 4.	Replace the paper, or set up the paper size correctly.
4	Checking PLATE ASSY BTM for operation Is PLATE ASSY BTM pushed up, and moved up and down smoothly, when installing Paper Cassette? Remove Paper Cassette. Check if PLATE ASSY BTM is pushed up, while installing Paper Cassette. Push PLATE ASSY BTM down and release, and check the movement. Check visually if PLATE ASSY BTM is incline to right or left.	Go to step 5.	Replace PLATE ASSY BTM. (RRP2.5, 4.5, 20.21)
5	Is Side Guide tightening the paper too much?	Slightly widen the Side Guide, and run the paper again.	Go to step 6.
6	Checking GEAR ASSY HOUSING for rotation Remove EP CARTRIDGE. Does each gear of GEAR ASSY HOUSING rotate normally? Check using Chapter 2 Diagnostic [Main Motor Test].	Go to step 7.	Check operation and mounting of GEAR ASSY HOUSING, and then go to FIP1.25 MAIN MOTOR.

Step	Check	Yes	No
7	Checking paper position Remove EP CARTRIDGE. Does the front end of paper touch ACTUATOR B of SENSOR REGI?	Go to step 8.	Go to FIP1.28 SENSOR REGI.
8	Checking ROLL ASSY RETARD Is ROLL ASSY RETARD clean and installed correctly? Check ROLL ASSY RETARD installed to each Paper Cassette.	Go to step 9.	Replace ROLL ASSY RETARD. (RRP2.1, 4.1, 20.17)
9	Checking the paper feeding tray Is the paper for test printing supplied from Tray 1 or Tray 2?	With tool Go to step 10. Without tool Go to step 11.	Go to step 12.
10	Checking CLUTCH ASSY PH for operation Does CLUTCH ASSY PH operate normally? Check using Chapter 2 Diagnostic [Tray1/2 Feed Clutch Test].	Go to step 12.	Go to FIP1.39 CLUTCH ASSY PH.
11	Checking CHUTE ASSY FDR1/2 for rotation Does each gear and roller of CHUTE ASSY FDR1/2 rotate smoothly? Turn each gear and roller with a finger to check.	Go to step 12.	Replace CHUTE ASSY FDR1/2.
12	Checking the paper feeding tray Is the paper for test printing supplied from Tray 3 or Tray 4?	With tool Go to step 13. Without tool Go to step 14.	Confirm that the paper is set, and then go to step 9.
13	Checking CLUTCH ASSY PH for operation Does CLUTCH ASSY PH operate normally? Check using Chapter 2 Diagnostic [Option Tray1/2 Feed Clutch Test].	Go to step 15.	Go to FIP1.39 CLUTCH ASSY PH.
14	Checking 550 FEEDER OPTION for operation Does each gear and roller of 550 FEEDER OPTION rotate smoothly? Turn each gear and roller with a finger to check.	Go to step 16.	Replace 550 FEEDER OPTION. (RRP20.9)
15	Checking CLUTCH PR-REGI for operation Does Clutch PR-REGI operate normally? Check using Chapter 2 Diagnostic [Option Feeder1/2 Turn Clutch Test].	Replace HVPS/ MCU. (RRP12.10)	Go to FIP4.12 CLUTCH PR- REGI.
16	Checking ROLL ASSY TURN for rotation Does ROLL ASSY TURN rotate smoothly? Turn ROLL ASSY TURN with a finger to check.	Replace HVPS/MCU. (RRP12.10)	Replace ROLL ASSY TURN. (RRP20.13)

FIP1.11 EP Cartridge

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) EP CARTRIDGE GUIDE ASSY CRU R (PL8.1.25)		
1	Checking EP CARTRIDGE (1) Is the EP CARTRIDGE appropriate model? Remove the EP CARTRIDGE to check the model.	Go to step 2.	Replace EP CAR- TRIDGE.
2	Checking EP CARTRIDGE (2) Install the EP CARTRIDGE again. Does STATUS 1-6 occur again when the power is turned ON?	Go to step 3.	End of work
3	Checking GUIDE ASSY CRU R Remove GUIDE ASSY CRU R. (RRP8.13) Is each harness continuous?	Go to step 4.	Replace GUIDE ASSY CRU R. (RRP8.13)
4	Checking EP CARTRIDGE (3) Replace the EP CARTRIDGE. Does Error occur again when the power is turned ON?	Replace HVPS/ MCU. (RRP12.10)	End of work

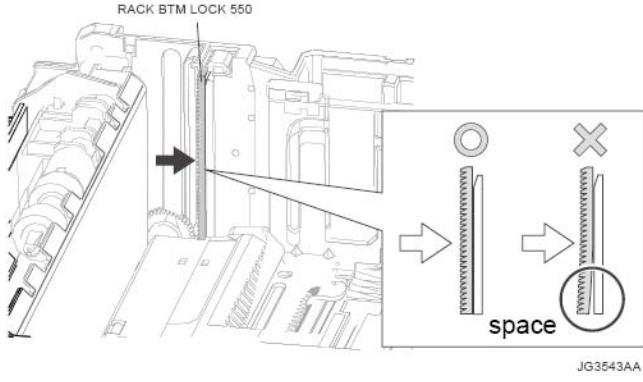
FIP1.12 Paper Size Error

Step	Check	Yes	No
	Possible causes: 150 FEEDER ASSY (PL5.1.1) 150 PAPER CASSETTE (PL2.1.50) SENSOR REGI (PL5.1.30) ACTUATOR B (PL5.1.17) HVPS/MCU (PL12.1.19) GUIDE TRAY LEFT (PL7.1.7) 550 FEEDER ASSY (PL7.1.10) 550 PAPER CASSETTE (PL4.1.50)		
1	Checking the paper size setup Does the paper size in use match the size setup by GUIDE ASSY END or by the driver on the PC?	Go to step 2.	Replace the paper, or change the paper size setting.
2	Checking NVRAM data Does NV01 Configuration 2 meet the specifications?	Go to step 3.	Modify the memory data.
3	Checking Regi Sensor Remove EP CARTRIDGE. Keep the lever of INTERLOCK S/W pushed as opening COVER OPEN (PL1.1.2). Does the number of Sensor/Switch Check increase one by one, when ACTUATOR B of SENSOR REGI is pushed and released? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Go to step 4.	Go to FIP1.28 SENSOR REGI.
4	Checking the paper feeding tray Is the paper supplied from Tray 1 or Tray 2, when Error is occurred?	Go to step 5.	Go to step 6.
5	Checking Paper Cassette (1) Are GUIDE ASSY END, GEAR SECTOR, RACK SIZE, LINK SW SIZE1/2/3 of Paper Cassette of Tray 1 or Tray 2 installed correctly?	Go to FIP2.17 GUIDE TRAY LEFT.	Reinstall the parts causing Error.
6	Checking the paper tray Is the paper supplied from Tray 3 or Tray 4 when Error is occurred?	Go to step 7.	Replace HVPS/MCU. (RRP12.10)
7	Checking Paper Cassette (2) Are GUIDE ASSY END, GEAR SECTOR, RACK SIZE, LINK SW SIZE1/2/3 of Paper Cassette of Tray 3 or Tray 4 installed correctly?	Go to FIP4.10 OPT ASSY SIZE.	Reinstall the parts causing Error.

FIP1.13 No Tray/Tray 1, 2

Step	Check	Yes	No
	Possible causes: GUIDE TRAY LEFT (PL7.1.7) 150 PAPER CASSETTE (PL2.1.50) HVPS/MCU (PL12.1.19) 550 PAPER CASSETTE (PL4.1.50)		
1	Does Error occur with Tray 3 or Tray 4?	Go to FIP4.1 "No Tray/Tray 3.4".	Go to step 2.
2	Does Error still occur, after removing and reinserting the Paper Cassette of Tray 1 and Tray 2?	Go to step 3.	End of work
3	Checking Paper Cassette Are GUIDE ASSY END, GEAR SECTOR, RACK SIZE, LINK SW SIZE1/2/3 of Paper Cassette of Tray 1 or Tray 2 installed correctly?	Go to FIP2.17 GUIDE TRAY LEFT.	Reinstall the obstructive parts.

FIP1.14 No Paper/Tray 1, 2

Step	Check	Yes	No
	Possible causes: SENSOR NO PAPER (PL5.1.38, PL7.1.38) ACTUATOR NO PAPER (PL5.1.6, PL7.1.14) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) PLATE ASSY BTM (PL2.1.10, PL4.1.10) RACK BTM LOCK 550 (PL4.1.21) HOUSING BASE 550(PL4.1.44)		
1	Does Error Code indicate Tray 3 or Tray 4?	Go to FIP4.2 "No Paper/Tray 3, 4".	Go to step 2.
2	Checking if there is any paper Is there any paper in Tray 1 or Tray 2?	Go to step 3.	Supply paper.
3	Is PLATE ASSY BTM (PL2.1.10, PL4.1.10) lifted correctly?	Go to step 4.	Remove Paper Cassette, and then reinstall it correctly.
4	<p>With pressing down PLATE ASSY BTM, press the center area of RACK BTM LOCK 550 against HOUSING BASE 550.</p> 	<p>Are RACK BTM LOCK 550 and HOUSING BASE 550 touched each other without any space? Go to step 5.</p>	Work over the installation of RACK BTM LOCK 550 again.(RRP4.6)
5	<p>Checking ACTUATOR NO PAPER for operation Remove Paper Cassette. When putting hand from the cassette insertion space to move ACTUATOR NO PAPER, does ACTUATOR NO PAPER move smoothly?</p>	Go to step 6.	Replace ACTUATOR NO PAPER.
6	<p>Checking SENSOR NO PAPER for operation Remove EP CARTRIDGE. Does number of Sensor/Switch Check increase by one, when ACTUATOR NO PAPER is pushed and released? Check using Chapter 2 Diagnostic [Sensor/Switch Check].</p>	Replace HVPS/MCU. (RRP12.10)	Go to FIP2.6 SENSOR NO PAPER.

FIP1.15 Low Paper in Tray/Tray 2

Step	Check	Yes	No
	Possible causes: SENSOR LOW PAPER (PL7.1.4) ACTUATOR LOW PAPER (PL7.1.5) PLATE ASSY BTM (PL4.1.10) HVPS/MCU (PL12.1.19) 550 PAPER CASSETTE (PL4.1.50) 550 FEEDER ASSY (PL7.1.10)		
1	Checking the sensor for operation Does Error still occur, after Paper Cassette filled with a specified amount of paper is inserted into Tray 2?	Go to step 2.	End of work
2	Checking ACTUATOR LOW PAPER for function Remove Paper Cassette. Does ACTUATOR LOW PAPER move smoothly, when moving ACTUATOR LOW PAPER up and down with a finger? Does ACTUATOR LOW PAPER go into the sensor part of SENSOR LOW PAPER, when the flag is pushed up? Does ACTUATOR LOW PAPER go out of the sensor part of SENSOR LOW PAPER, when the flag is released?	Go to step 3.	Replace ACTUATOR LOW PAPER.
3	Checking PLATE ASSY BTM for operation Does PLATE ASSY BTM move ACTUATOR LOW PAPER normally, when PLATE ASSY BTM is pushed or released?	Go to FIP2.7 SENSOR LOW PAPER.	Replace PLATE ASSY BTM. (RRP4.5)

FIP1.16 Drum Life

Step	Check	Yes	No
	Possible causes: EP CARTRIDGE GUIDE ASSY CRU R (PL8.1.25) HVPS/MCU (PL12.1.19)		
1	Checking EP CARTRIDGE Does Error still occur, after installing a new EP CARTRIDGE?	Go to step 2.	End of work
2	Checking GUIDE ASSY CRU R for continuity Remove EP CARTRIDGE. Remove GUIDE ASSY CRU R. (RRP8.13) Is each cable of each harness continuous?	Replace HVPS/ MCU. (RRP12.10)	Replace GUIDE ASSY CRU R. (RRP8.13)

FIP1.17 Fuser Life

Step	Check	Yes	No
	Possible causes: FUSER ASSY (PL8.1.20) HARNESS ASSY FUSER (PL8.1.17) HVPS/MCU (PL12.1.19)		
1	Checking FUSER ASSY Does Error still occur, after installing a new FUSER ASSY and sending RESET FUSER LIFE WARNING command? Checks by sending RESET FUSER LIFE WARNING Command from Controller section to MCU section of HVPS/MCU, using Chapter 2 Diagnostic [FUSER WARNING COUNT RESET].	Replace HVPS/ MCU. (RRP12.10)	End of work

FIP1.18 No Power

Step	Check	Yes	No
	Possible causes: POWER CORD (PL12.1.23) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19) OPERATION PANEL (PL1.1.1) HARNESS ASSY PANEL (PL1.1.10) INTERLOCK S/W 24V (PL8.1.11) INTERLOCK S/W 5V (PL8.1.12) INTERLOCK S/W REAR (PL12.1.7) FAN MAIN (PL1.1.14) FAN SUB (PL8.1.5) ROS ASSY (PL8.1.1) FUSER ASSY (PL8.1.20) GEAR ASSY HOUSING (PL11.1.3) MAIN MOTOR (PL11.1.2) CLUTCH REGI (PL5.1.23) PWBA ESS (PL12.1.13) PWBA FEEDER 550 (PL20.1.34) PWBA DUPLEX (PL21.1.32) CLUTCH ASSY PH (PL5.1.21, PL7.1.20, PL20.2.21) CLUTCH PR-REGI (PL20.2.22)		
1	Checking POWER CORD for continuity Is each cable of POWER CORD continuous?	Go to step 2.	Replace POWER CORD.
2	Checking AC power source Does the voltage of AC power source meet commercial voltage?	Go to step 3.	Ask the customer to arrange the AC power source.
3	Checking the fuse Remove SHIELD PLATE LVPS (PL12.1.3). (RRP12.1) Is the fuse on LVPS open?	Replace LVPS. (RRP12.3)	Go to step 4.
4	Checking Option 550 Paper Feeder (PL20) Do two fans rotate, when the power is turned ON? Remove Option 550 Paper Feeder to check.	Go to FIP4.7,8 PWBA FEEDER 550, FIP1.39 CLUTCH ASSY PH, and FIP4.12 CLUTCH PR-REGI.	Go to step 5.
5	Checking Option Duplex (PL21) Do two fans rotate, when the power is turned ON? Remove Option Duplex to check.	Go to FIP2.8 PWBA DUPLEX, and FIP2.9 MOTOR DUPLEX.	Go to step 6.
6	Checking 24 V power line Remove SHIELD PLATE HVPS (PL12.1.18). Check if P/J10 is connected to HVPS/MCU. Remove EP CARTRIDGE. Check each of the following for 24VDC. P/J10-1(+) and P/J10-4(-) P/J10-2(+) and P/J10-5(-) P/J10-3(+) and P/J10-6(-) P/J10-8(+) and P/J10-7(-)	Go to step 7.	Go to FIP1.24 LVPS.

Step	Check	Yes	No
7	Checking CLUTCH REGI (PL5.1.23) Remove SHIELD PLATE HVPS (PL12.1.18). Disconnect P/J243. Remove EP CARTRIDGE. Does FAN MAIN rotate, when the power is turned ON?	Go to FIP1.38 CLUTCH REGI.	Go to step 8.
8	Checking OPERATION PANEL Disconnect HARNESS ASSY PANEL from PWBA ESS. Remove EP CARTRIDGE. Does FAN MAIN rotate, when the power is turned ON? Check with the wind from exhaust on back of the printer.	Go to step 9.	Go to step 10.
9	Checking HARNESS ASSY PANEL for continuity Disconnect HARNESS ASSY PANEL from PWBA ESS. Is there any open circuit or short circuit on the harness, and is every cable continuous?	Replace OPERA- TIONAL PANEL. (RRP1.4)	Replace HAR- NESS ASSY PANEL.
10	Checking ROS ASSY Disconnect P/J13, P/J14, P/J16 and P/J17 from HVPS/ MCU. Remove EP CARTRIDGE. Does FAN MAIN rotate, when the power is turned ON?	Replace ROS ASSY. (RRP8.1)	Go to step 11.
11	Checking PWBA FEEDER Disconnect P/J20 from HVPS/MCU. Remove EP CARTRIDGE. Does FAN MAIN rotate, when the power is turned ON?	Replace PWBA FEEDER 550. (RRP20.8)	Go to step 12.
12	Checking INTERLOCK S/W Disconnect P/J44 and P/J45 from LVPS. Are the followings continuous when pushing the lever of INTERLOCK S/W, and not continuous when releasing? P/J44-1 and P/J44-3 P/J45-1 and P/J45-3	Go to step 13.	Replace INTER- LOCK S/W. (RRP8.5, 12.5)
13	Checking SWITCH I/L ASSY Disconnect P/J411. Is it continuous between P/J411-2 and P/J411-1, when SWITCH I/L ASSY is pushed, and is not when released?	Go to step 14.	Replace SWITCH I/ L ASSY. (RRP1.6)
14	Checking CLUTCH ASSY PH Disconnect P/J242 and P/J247 from HARNESS ASSY TRAY 1/2. Remove EP CARTRIDGE. Does the FAN MAIN rotate, when the power is turned ON?	Go to FIP1.39 CLUTCH ASSY PH.	Go to step 15.
15	Checking MAIN MOTOR Disconnect P/J43 from LVPS. Remove EP CARTRIDGE. Does FAN MAIN rotate, when the power is turned ON?	Go to FIP1.25 MAIN MOTOR.	Go to step 16.
16	Checking FAN MAIN Replace FAN MAIN. (RRP12.6) Remove EP CARTRIDGE. Does the FAN MAIN rotate, when the power is turned ON?	End of work	Go to step 17.

Step	Check	Yes	No
17	Checking FAN SUB Replace FAN SUB. (RRP8.2) Remove EP CARTRIDGE. Does the FAN SUB rotate, when the power is turned ON?	End of work	Replace HVPS/ MCU. (RRP12.10)

FIP1.19 LCD/LED Display Error

Step	Check	Yes	No
	Possible causes: OPERATION PANEL (PL1.1.1) HARNESS ASSY PANEL (PL1.1.10) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Checking 3.3VDC power line Is the voltage across the harness of OPERATION PANEL, 3.3 VDC?	Go to step 2.	Go to step 4
2	Checking OPERATION PANEL for continuity (1) Is every cable of HARNESS ASSY PANEL continuous?	Go to step 3.	Replace HAR- NESS ASSY PANEL.
3	Checking OPERATION PANEL (2) Is the display stable, after replacing OPERATION PANEL? (RRP1.4)	End of work	Replace HVPS/ MCU. (RRP12.10)
4	Checking the power to OPERATION PANEL Is the voltage across P/J28-5(+) and P/J28-4(-) on HVPS/MCU, 3.3VDC?	Go to step 5.	Replace HVPS/ MCU. (RRP12.10)
5	Checking FCC ASSY ESS for continuity Disconnect P/J28 from HVPS/MCU. Is there continuity between P/J28-5 and P/J280-22? P/J28-4 and P/J280-23?	Replace PWBA ESS. (PL12.1.13)	Replace FCC ASSY ESS. (PL12.1.16)

FIP1.20 Inoperative Keypad

Step	Check	Yes	No
	Possible causes: OPERATION PANEL (PL1.1.1) HARNESS ASSY PANEL (PL1.1.10) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Checking 3.3 VDC power line Is the voltage across the harness of OPERATION PANEL, 3.3 VDC?	Go to step 2.	Go to step 4.
2	Checking OPERATION PANEL for continuity (1) Is every cable of HARNESS ASSY PANEL continuous?	Go to step 3.	Replace HAR- NESS ASSY PANEL.
3	Checking OPERATION PANEL (2) Is the display stable, after replacing OPERATION PANEL? (RRP1.4)	End of work	Replace HVPS/ MCU. (RRP12.10)
4	Checking the power to OPERATION PANEL Is the voltage across P/J28-5(+) and P/J28-4(-) on HVPS/MCU, 3.3VDC?	Go to step 5.	Replace HVPS/ MCU. (RRP12.10)
5	Checking FCC ASSY ESS for continuity Disconnect P/J28 from HVPS/MCU. Is there continuity between P/J28-5 and P/J280-22? P/J28-4 and P/J280-23?	Replace PWBA ESS. (PL12.1.13)	Replace FCC ASSY ESS. (PL12.1.16)

FIP1.21 Other Printer Error

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Run a test print. Is the printer able to test print? Check using Chapter 2 Diagnostic [TEST PATTERN MODE MENU].	Go to step 4.	Go to step 2.
2	Checking LVPS (1) Remove SHIELD PLATE LVPS. (RRP12.1) Remove EP CARTRIDGE. Is the voltage across P/J11-13(+) and P/J11-14(-) on HVPS/ MCU, 5 VDC?	Go to step 3.	Go to FIP1.24 LVPS.
3	Checking LVPS (2) Remove EP CARTRIDGE. Is the voltage across P/J11-16(+) and P/J11-15(-) on HVPS/ MCU, 3.3 VDC?	Replace HVPS/ MCU. (RRP12.10)	Go to FIP1.24 LVPS.
4	Checking the test printing after installing EP CARTRIDGE. Is the printer reset?	Go to FIP1.42 Electrical Noise.	Go to step 5.
5	Checking Interface Cable Does the problem still occur, after replacing Interface Cable to connect the host with the printer?	Go to step 6.	End of work
6	Check after replacing HVPS/MCU Replace HVPS/MCU. (RRP12.10) Does the problem still occur, after replacing HVPS/ MCU?	Let the customer know that possible cause may be in the host computer.	End of work

FIP1.22 Face Up Tray Error

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) SENSOR FACE UP OPEN (PL10.1.25) GATE FU (PL10.2.6) LEVER GATE FU (PL10.2.17)		
1	Checking Actuator for operation Does ACTUATOR FULL STACK in GATE FU move smoothly, when moving LEVER GATE FU up and down?	With tool Go to step 2. Without tool Go to step3.	Replace GATE FU.
2	Checking SENSOR FACE UP for operation Remove EP CARTRIDGE. Does the number of Sensor/Switch Check increase by one, every time moving LEVER GATE FU up and down? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Go to step 3.	Go to FIP1.44 SENSOR FACE UP OPEN.
3	Checking SENSOR FACE UP OPEN for operation Replace SENSOR FACE UP OPEN. Does the problem still occur, after replacing SENSOR FACE UP OPEN?	Replace HVPS/MCU. (RRP12.10)	End of work

FIP1.23 Full Stack Error/500 Paper Exit

Step	Check	Yes	No
	Possible causes: SENSOR FULL STACK (PL10.1.26) ACTUATOR FULL STACK (PL10.1.10) HVPS/MCU (PL12.1.19)		
1	Checking ACTUATOR FULL STACK for operation Does ACTUATOR FULL STACK in paper feed out section move smoothly?	With tool Go to step 2. Without tool Go to step3.	Replace ACTUATOR FULL STACK.
2	Checking SENSOR FULL STACK for operation (1) Remove EP CARTRIDGE. Does the number of Sensor/Switch Check increase by one, every time pushing and releasing ACTUATOR FULL STACK? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Go to step 3.	Go to FIP1.45 SENSOR FULL STACK.
3	Checking SENSOR FULL STACK for operation (2) Replace SENSOR FULL STACK. Does the problem still occur, after replacing SENSOR FULL STACK?	Replace HVPS/MCU. (RRP12.10)	End of work

4.2 Level 2 FIP

FIP1.24 LVPS

Step	Check	Yes	No
	Possible causes: LVPS (PL12.1.5) HVPS/MCU (PL12.1.19) HARNESS ASSY LVPS (PL12.1.1)		
1	Checking LVPS (PL12.1.5) control power Remove SHIELD PLATE LVPS. (RRP12.1) Disconnect P/J41 from LVPS. Turn the power ON. Check the voltages below are in specified value. P/J41-1(+) and P/J41-2(-): 3.3 V P/J41-4(+) and P/J41-3(-): 5 V	Go to step 2.	Replace LVPS. (RRP12.3)
2	Checking LVPS driving power Disconnect P/J42 from LVPS. Turn the power ON. Is the voltage across P/J42-1(+) and P/J42-2(-), 24 VDC?	Go to step 3.	Go to FIP2.9 INTERLOCK S/W 24V, FIP1.34 INTERLOCK S/W REAR or FIP2.12 SWITCH I/L ASSY.
3	Checking HARNESS ASSY LVPS for continuity Turn the power OFF. Disconnect P/J11 from HVPS/MCU. Disconnect P/J41 from LVPS. Is each cable of J11 and J41 continuous?	Go to step 4.	Replace HAR- NESS ASSY LVPS.
4	Checking AC power source Is AC power supply outlet appropriately wired and earthed?	Replace HVPS/ MCU. (RRP12.10)	Inform the client or the electrician.

FIP1.25 MAIN MOTOR

Step	Check	Yes	No
	Possible causes: MAIN MOTOR (PL11.1.2) HARNESS ASSY LVPS (PL12.1.1) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19)		
1	Checking MAIN MOTOR Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Does MAIN MOTOR rotate, when the power is turned ON? Check by rotation sound of MAIN MOTOR.	Go to step 2.	Go to step 3.
2	Is the trouble eliminated?	End of work	Go to step 3.
3	Checking HARNESS ASSY LVPS for continuity (1) Remove SHIELD PLATE LVPS. (RRP12.1) Disconnect P/J41 from LVPS. Disconnect P/J11 from HVPS/MCU. Is each cable of P/J41 and P/J11 continuous?	Go to step 4.	Replace HAR- NESS ASSY LVPS.
4	Checking HARNESS ASSY LVPS for continuity (2) Remove SHIELD PLATE LVPS. (RRP12.1) Disconnect P/J42 from LVPS. Disconnect P/J10 from HVPS/MCU. Is each cable of P/J42 and P/J10 continuous?	Go to step 5.	Replace HAR- NESS ASSY LVPS.
5	Checking LVPS Replace LVPS. (RRP12.3) Is the trouble eliminated?	End of work	Go to step 6.
6	Checking HVPS/MCU Replace HVPS/MCU. (RRP12.10) Is the trouble eliminated?	End of work	Replace MAIN MOTOR. (RRP11.2)

FIP1.26 ROS ASSY

Step	Check	Yes	No
	Possible causes: ROS ASSY (PL8.1.1) HARNESS ASSY ROS (PL8.1.2) INTERLOCK S/W 5V (PL8.1.12) HARNESS ASSY LVPS (PL12.1.1) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Checking the power to Laser Diode of ROS ASSY Remove COVER TOP ASSY (PL1.1.7). (RRP1.4) Disconnect P/J140 from ROS ASSY. Install EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Is the voltage across J140-8(+) and J140-7(-), 5 VDC?	Go to step 8.	Go to step 2.
2	Checking INTERLOCK S/W 5V Remove INTERLOCK S/W 5V. Is it continuous between P/J142-1 and P/J142-3, when INTERLOCK S/W 5V is pushed, and is not when released?	Go to step 3.	Replace INTER-LOCK S/W 5V. (RRP8.5)
3	Checking SWITCH I/L ASSY 5V Remove SWITCH I/L ASSY 5V. Is it continuous between P/J144-1 and P/J144-3, when SWITCH I/L ASSY 5 V is pushed, and is not when released?	Go to step 4.	Replace SWITCH I/ L ASSY 5V. (RRP1.6)
4	Checking HARNESS ASSY LVPS Disconnect P/J141 of HARNESS ASSY LVPS. Is it conductive between P/J141-1 and P/J141-3 when INTERLOCK S/W 5V and SWITCH I/L ASSY 5V are pushed simultaneously, and is not when released?	Go to step 5.	Replace HAR-NESS ASSY LVPS.
5	Checking HARNESS ASSY ROS Disconnect P/J14 from HVPS/MCU. Disconnect P/J140 from ROS ASSY. Is it continuous between P/J14-1 and P/J140-8, when INTERLOCK S/W 5V and SWITCH I/L ASSY 5V are pushed simultaneously, and is not when released?	Go to step 6.	Replace HAR-NESS ASSY ROS.
6	Checking power to HVPS/MCU Remove SHIELD PLATE LVPS. (RRP12.1) Install EP CARTRIDGE. Disconnect P/J41 from LVPS. Is the voltage across P/J41-4 and P/J41-3, 5 VDC?	Replace LVPS. (RRP12.3).	Go to step 7.
7	Checking HVPS/MCU for continuity Disconnect P/J14 and P/J11 from HVPS/MCU. Is there continuity between P/J14-1 and P/J11-13?	Go to step 8.	Replace HVPS/ MCU. (RRP12.10).
8	Checking HARNESS ASSY LVPS for continuity Disconnect P/J11 from HVPS/MCU. Is there continuity between P/J11-13 and P/J41-4?	Go to step 9.	Replace HAR-NESS ASSY LVPS.

Step	Check	Yes	No
9	Checking /ROSMOT ON signal of Scanner Motor Install EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Is P/J13-3(+) and P/J13-2(-) on HVPS/MCU, 0 V just after when the power is turned ON, and 5VDC 10 seconds after stopping MAIN MOTOR?	Go to step 11.	Go to step 10.
10	Checking HARNESS ASSY ROS for continuity Disconnect P/J13 from HVPS/MCU. Is each cable of P/J13 and P/J130 continuous?	Replace HVPS/MCU. (RRP12.10)	Replace HARNESS ASSY ROS.
11	Checking HARNESS ASSY ROS for continuity Disconnect P/J17 and P/J16 from HVPS/MCU. Disconnect P/J170 and P/J160 from ROS ASSY. Is there continuity between P/J17 and P/J170? P/J16 and P/J160?	Go to step 12.	Replace HARNESS ASSY ROS.
12	Checking SOS power circuit of ROS ASSY Disconnect P/J140 from ROS ASSY. Is there continuity between P/J140-8 and P/J201-1? P/J140-6 and P/J201-2? P/J140-7 and P/J201-3?	Go to step 13.	Replace ROS ASSY. (RRP8.1)
13	Checking after replacing HVPS/MCU Replace HVPS/MCU. (RRP12.10) Does the problem still occur, after replacement?	Go to step 14.	End of work
14	Checking after replacing ROS ASSY Replace ROS ASSY. (RRP8.1) Does the problem still occur, after replacement?	Go to FIP1.42 Electrical Noise.	End of work

FIP1.27 FUSER ASSY

Step	Check	Yes	No
	Possible causes: FUSER ASSY (PL8.1.20) HVPS/MCU (PL12.1.19) INTERLOCK S/W 24V (PL8.1.11) HARNESS ASSY FUSER 100V/200V (PL8.1.17) HARNESS ASSY AC100V/200V (PL12.1.8) LVPS (PL12.1.5) HARNESS ASSY LVPS (PL12.1.1)		
1	Checking Heater circuit for continuity Remove SHIELD PLATE LVPS. (RRP12.1) Disconnect P/J47 from LVPS. Is there continuity between J47-1 and J47-5? J47-1 and J47-3?	Go to step 3.	Go to step 2.
2	Checking HARNESS ASSY FUSER for continuity Remove FUSER ASSY. (RRP8.8) Warning; Start the operation after the FUSER ASSY have cooled down. Is there continuity between J4647B-3 and J47-1? J4647B-2 and J47-3? J4647B-1 and J47-5?	Replace FUSER ASSY. (RRP8.8)	Replace HAR- NESS ASSY FUSER. (RRP8.7)
3	Checking Fuser power source voltage Disconnect P/J48 from LVPS. Remove EP CARTRIDGE. Turn the power to ON. Is the voltage across P/J48-1 and P/J48-3, commercial voltage?	Go to step 5.	Go to step 4.
4	Checking AC line voltage Is the AC line voltage the commercial voltage?	Replace HAR- NESS ASSY AC100V/200V (RRP12.4)	Inform the client or the electrician.
5	Checking Heater Rod ON signal voltage Make sure FUSER ASSY is cooled down. Make sure that EP CARTRIDGE is removed. Is the voltage across P/J41-13(+) and P/J41-12(+) and P/J41-3(-), 0VDC when Heater Rod lights on, and 3.3VDC when off?	Go to step 7.	Go to step 6.
6	Checking HARNESS ASSY LVPS for continuity Disconnect P/J11 from HVPS/MCU. Is there continuity between P/J41-1 and P/J11-16? P/J41-9 and P/J11-8? P/J41-10 and P/J11-7? P/J41-12 and P/J11-5? P/J41-13 and P/J11-4?	Replace HVPS/ MCU. (RRP12.10)	Replace HAR- NESS ASSY LVPS.

Step	Check	Yes	No
7	Checking the resistance of Thermistor of Temperature Sensor Disconnect P/J46 from LVPS. Is the resistance between P/J46-6 and P/J46-7 and P/J46-1 and P/J46-2 about 480 k-ohm in the normal temperature (about 20 °C)?	Go to step 8.	Replace FUSER ASSY. (RRP8.8)
8	Checking after replacing HVPS/MCU Replace HVPS/MCU. (RRP12.10) Does the problem still occur after replacement?	Go to step 9.	End of work
9	Checking after replacing LVPS Replace LVPS. (RRP12.3) Does the problem still occur after replacement?	Replace FUSER ASSY. (RRP8.8)	End of work

FIP1.28 SENSOR REGI

Step	Check	Yes	No
	Possible causes: SENSOR REGI (PL5.1.30) ACTUATOR B (PL5.1.17) 150 FEEDER ASSY (PL5.1.1) HARNESS ASSY TRAY1 (PL5.1.37) HARNESS ASSY CHUTE (PL12.1.17) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Checking ACTUATOR B for operation and shape Remove 150 FEEDER ASSY. (RRP5.1) Does ACTUATOR B operate smoothly? Is the flag of ACTUATOR B formed normally to shield the Sensor detecting point? Check if the flag of ACTUATOR B is formed normally again, pushing ACTUATOR B by inserting a mini screwdriver from the paper entrance space at the lower and side sections each of 150 FEEDER ASSY.	With tool Go to step 2. Without tool Go to step 3.	Replace ACTUATOR B.
2	Checking SENSOR REGI (1) Connect the connector J241 of HARNESS ASSY TRAY1 to SENSOR REGI, with 150 FEEDER ASSY removed. Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Does the number of Sensor/Switch Check increase by one, by moving ACTUATOR B with a mini screwdriver? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.19)	Go to step 4.
3	Check SENSOR REGI (2) Connect the connector J241 of HARNESS ASSY TRAY1 to SENSOR REGI, with 150 FEEDER ASSY removed. Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Is the voltage across P/J24-11(+) and P/J24-10(-), 3.3 VDC when ACTUATOR B is pushed, and 0 VDC when released? Measure the voltage by moving ACTUATOR B with a mini screwdriver.	Replace HVPS/MCU. (RRP12.19)	Go to step 4.
4	Checking the power to SENSOR REGI Remove EP CARTRIDGE. Is the voltage across P/J24-9(+) and P/J24-10(-) on HVPS/MCU, about 3.3 VDC?	Go to step 5.	Go to step 7.
5	Checking HARNESS ASSY CHUTE for continuity Disconnect P/J24 from HVPS/MCU. Disconnect P/J245. Is there continuity between J24-9 and J245-10? J24-10 and J245-9? J24-11 and J245-8?	Go to step 6.	Replace HARNESS ASSY CHUTE.

Step	Check	Yes	No
6	Checking HARNESS ASSY TRAY1 for continuity Remove SENSOR REGI. (RRP5.7) Disconnect P/J245. Is there continuity between P/J245-4 and P/J241-3? P/J245-5 and P/J241-2? P/J245-6 and P/J241-1?	Go to step 8.	Replace HAR- NESS ASSY TRAY1.
7	Checking HVPS/MCU for continuity Disconnect P/J11 from HVPS/MCU. Is there continuity between P/J11-16 and P/J24-9?	Go to FIP1.24 LVPS.	Replace HVPS/ MCU. (RRP12.10)
8	Checking SENSOR REGI (3) Replace SENSOR REGI. (RRP5.7) Does the problem occur after replacement?	Replace HVPS/ MCU. (RRP12.10)	End of work

FIP1.29 SENSOR NO PAPER

Step	Check	Yes	No
	Possible causes: SENSOR NO PAPER (PL5.1.38, PL7.1.38) ACTUATOR NO PAPER (PL5.1.6, PL7.1.14) 150 FEEDER ASSY (PL5.1.1) HARNESS ASSY TRAY1 (PL5.1.37) HARNESS ASSY TRAY2 (PL7.1.36) HARNESS ASSY CHUTE (PL12.1.17) HVPS/MCU (PL12.1.19) PLATE ASSY BTM (PL2.1.10, PL4.1.10) LVPS (PL12.1.5) 550 FEEDER ASSY (PL7.1.10)		
1	Checking ACTUATOR NO PAPER for shape and operation Does ACTUATOR NO PAPER operate smoothly? Is the flag between the sensor detecting point when ACTUATOR NO PAPER is low (there is no paper), and out of the detecting point when ACTUATOR NO PAPER is high (there is paper)?	Go to step 2.	Replace ACTUATOR NO PAPER.
2	Checking PLATE ASSY BTM Fit the empty Paper Cassette. Is the flag of ACTUATOR NO PAPER located in between sensor detecting point?	With tool Go to step 3. Without tool Go to step 4.	Replace PLATE ASSY BTM. (RRP2.5, 4.5)
3	Checking SENSOR NO PAPER (1) Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Remove Paper Cassette. Put the hand from the tray insertion space, and move ACTUATOR NO PAPER up and down. Does the number increase one by one, as ACTUATOR NO PAPER operates? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HDVS/MCU. (RRP12.10)	Go to step 5.
4	Checking SENSOR NO PAPER (2) Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Remove Paper Cassette. Put the hand from the tray insertion space, move ACTUATOR NO PAPER up and down. Is each voltage across P/J24-8(+) and P/J24-7(-) and P/J24-3(+) and P/J24-2(-), 0VDC when ACTUATOR NO PAPER is moved up, 3.3VDC when down?	Replace HDVS/MCU. (RRP12.10)	Go to step 5.
5	Checking the power to SENSOR NO PAPER Remove EP CARTRIDGE. Is each voltage across P/J24-6(+) and P/J24-7(-) and P/J24-1(+) and P/J24-2(-) on HVPS/MCU, 3.3 VDC?	Go to step 6.	Go to step 8.

Step	Check	Yes	No
6	Checking HARNESS ASSY CHUTE for continuity Disconnect P/J24 from HVPS/MCU. Disconnect P/J245 and P/J248. Is there continuity between J24-6 and J245-13? J24-7 and J245-12? J24-8 and J245-11? J24-1 and J248-5? J24-2 and J248-4? J24-3 and J248-3?	Go to step 7.	Replace HAR- NESS ASSY CHUTE.
7	Checking HARNESS ASSY TRAY1 and HARNESS ASSY TRAY2 for continuity Remove SENSOR NO PAPER. Disconnect P/J24 from HVPS/MCU. Is there continuity between P/J245-1 and P/J240-3? P/J245-2 and P/J240-2? P/J245-3 and P/J240-1? P/J248-1 and P/J246-3? P/J248-2 and P/J246-2? P/J248-3 and P/J246-1?	Go to step 9.	Replace HAR- NESS ASSY TRAY1 or HAR- NESS ASSY TRAY2.
8	Checking HVPS/MCU for continuity Disconnect P/J11 from HVPS/MCU. Is there continuity between P/J11-16 and P/J24-6 and P/J11-16 and P/J24-1?	Go to FIP1.24 LVPS.	Replace HVPS/ MCU. (RRP12.10)
9	Checking SENSOR NO PAPER (3) Replace SENSOR NO PAPER. (RRP5.8, 7.6) Does the problem still occur, after replacement?	Replace HVPS/ MCU. (RRP12.10)	End of work

FIP1.30 SENSOR LOW PAPER

Step	Check	Yes	No
	Possible causes: SENSOR LOW PAPER (PL7.1.4) ACTUATOR LOW PAPER (PL7.1.5) PLATE ASSY BTM (PL4.1.10) HARNESS ASSY LOW1 (PL7.1.2) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19)		
1	Checking ACTUATOR LOW PAPER for operation Install Paper Cassette. Does ACTUATOR LOW PAPER operate smoothly, when PLATE ASSY BTP is pushed and released by the hand? Does the flag go into the detection point of the sensor, when PLATE ASSY BTM is released (Actuator is pushed up), and out of the detection point, when pushed down?	With tool Go to step 2. Without tool Go to step 3.	Replace ACTUA- TOR LOW PAPER.
2	Checking SENSOR LOW PAPER for operation (1) Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Remove Paper Cassette. Put the hand in the tray insertion space, move ACTUA- TOR LOW PAPER. Does the number increase one by one, as ACTUATOR LOW PAPER moves? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HDVS/ MCU. (RRP12.10)	Go to step 3.
3	Checking HARNESS ASSY LOW1 for continuity Remove HARNESS ASSY LOW1. Is there continuity between J260 and J26?	Go to step 4.	Replace HAR- NESS ASSY LOW1.
4	Checking SENSOR LOW PAPER (2) Replace SENSOR LOW PAPER. (RRP7.9) Does the problem still occur, after replacement?	Replace HDVS/ MCU. (RRP12.10)	End of work

FIP1.31 SENSOR TONER

Step	Check	Yes	No
	Possible causes: SENSOR TONER (PL5.1.46) SENSOR TONER ASSY (PL5.1.45) HARNESS ASSY TONER1 (PL5.1.50) HARNESS ASSY TONER2 (PL12.1.28) EP CARTRIDGE HVPS/MCU (PL12.1.19)		
1	Checking EP CARTRIDGE (1) Does sufficient toner in EP CARTRIDGE remain?	Go to step 3.	Go to step 2.
2	Checking EP CARTRIDGE (2) Does the problem still occur, after replacing EP CARTRIDGE?	Go to step 3.	End of work
3	Checking SENSOR TONER ASSY installation Is SENSOR TONER ASSY installed correctly, and does HOLDER-D operate smoothly?	Go to step 4.	Replace SENSOR TONER ASSY.
4	Checking HARNESS ASSY TONER1 for continuity Remove HARNESS ASSY TONER1. Is there continuity between J220 and J221?	Go to step 5.	Replace HARNESS ASSY TONER1.
5	Checking HARNESS ASSY TONER2 for continuity Remove HARNESS ASSY TONER2. Is there continuity between J22 and J221?	Go to step 6.	Replace HARNESS ASSY TONER2.
6	Checking SENSOR TONER Replace SENSOR TONER. (RRP5.9) Does the problem still occur, after replacement?	Replace HVPS/ MCU. (RRP12.10)	End of work

FIP1.32 INTERLOCK S/W 24V

Step	Check	Yes	No
	Possible causes: INTERLOCK S/W 24V (PL8.1.11) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19)		
1	Checking INTERLOCK S/W 24V Disconnect P/J45 from LVPS. Is P/J45-1 and P/J45-3 continuous, when INTERLOCK S/W 24V is pushed, and not when released?	Go to FIP1.24 LVPS.	Replace INTER- LOCK S/W 24V. (RRP8.5)

FIP1.33 INTERLOCK S/W 5V, SWITCH I/L ASSY

Step	Check	Yes	No
	Possible causes: INTERLOCK S/W 5V (PL8.1.12) SWITCH I/L ASSY (PL1.1.11) HARNESS ASSY ROS (PL8.1.2) HARNESS ASSY LVPS (PL12.1.1) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19)		
1	Checking INTERLOCK S/W 5VL Remove INTERLOCK S/W 5VL. Is P/J142-1 and P/J142-3 continuous, when INTER- LOCK S/W 5V is pushed, and not when released?	Go to step 2.	Replace INTER- LOCK S/W 5VL. (RRP8.5)
2	Checking SWITCH I/L ASSY Remove INTERLOCK S/W 5VR. Is P/J144-1 and P/J144-3 continuous, when INTER- LOCK S/W 5VR is pushed, and not when released?	Go to step 3.	Replace SWITCH I/ L ASSY. (RRP1.6)
3	Checking HARNESS ASSY LVPS for continuity Disconnect P/J141, P/J142 and P/J144 of HARNESS ASSY LVPS. Is there continuity between J141-3 and P142-1? J141-1 and P144-3? J142-3 and P144-1?	Go to step 4.	Replace HAR- NESS ASSY LVPS.
4	Checking HARNESS ASSY ROS for continuity Disconnect P/J141, P/J14 and P/J140 of HARNESS ASSY ROS. Is there continuity between P141-1 and J141-1? P141-3 and P140-8?	Go to FIP1.24 LVPS.	Replace HAR- NESS ASSY ROS.

FIP1.34 INTERLOCK S/W REAR

Step	Check	Yes	No
	Possible causes: INTERLOCK S/W REAR (PL12.1.7) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19)		
1	Checking INTERLOCK S/W REAR for continuity Disconnect P/J44 from LVPS. Is P/J44-1 and P/J44-3 continuous, when INTERLOCK S/W REAR is pushed, and not when released?	Go to FIP1.24 LVPS.	Replace INTER- LOCK S/W REAR. (RRP12.5)

FIP1.35 SWITCH I/L ASSY (Interlock S/W Front R)

Step	Check	Yes	No
	Possible causes: SWITCH I/L ASSY (PL1.1.11) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19)		
1	Checking SWITCH I/L ASSY for continuity Disconnect P/J411. Is P/J411-1 and P/J411-2 continuous, when SWITCH I/L ASSY is pushed, and not when released?	Go to step 2.	Replace SWITCH I/L ASSY. (RRP1.6)
2	Checking HARNESS ASSY LVPS for continuity Disconnect P/J11, P/J41 and P/J411. Is there continuity between P411-2 and J41-5? P411-1 and J11-12?	Go to FIP1.24 LVPS.	Replace HARNESS ASSY LVPS.

FIP1.36 PWBA EXIT MOTOR

Step	Check	Yes	No
	Possible causes: PWBA EXIT MOTOR (PL12.1.4) HARNESS ASSY LVPS (PL12.1.1) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19)		
1	Checking HARNESS ASSY LVPS for continuity Disconnect P/J27, P/J10, P/J102 and P/J101 from HARNESS ASSY LVPS. Is there continuity between J27 and J102?	Go to step 2.	Replace HARNESS ASSY LVPS.
2	Checking PWBA EXIT MOTOR power source voltage. Disconnect P/J101 from PWBA EXIT MOTOR. Is the voltage across J101-2(+) and J101-1(-), 24 VDC?	Go to step 3.	Replace LVPS. (RRP12.3)
3	Checking PWBA EXIT MOTOR. Replace PWBA EXIT MOTOR. (RRP12.2) Is the problem cleared, after replacement?	End of work	Replace HVPS/MCU. (RRP12.10)

FIP1.37 MOTOR ASSY EXIT

Step	Check	Yes	No
	Possible causes: MOTOR ASSY EXIT (PL10.1.15) PWBA EXIT MOTOR (PL12.1.4) HARNESS ASSY LVPS (PL12.1.1) LVPS (PL12.1.5) HVPS/MCU (PL12.1.19)		
1	Checking MOTOR ASSY EXIT for operation. Not using DIAG tool- Replace MOTOR ASSY EXIT. (RRP10.5) Is the problem cleared, after replacement?	End of work	Go to step 3.
	Using DIAG tool- Does the MOTOR ASSY EXIT rotate? Check using Chapter 2 Diagnostic: [Exit Motor, Clockwise Test] [Exit Motor, Counterclockwise, High Speed Test] [Exit Motor, Counterclockwise, Low Speed Test]	End of work	Go to step2.
2	Checking MOTOR ASSY EXIT Replace MOTOR ASSY EXIT. (RRP10.5) Is the problem cleared, after replacement?	End of work.	Go to step 3.
3	Checking HARNESS ASSY LVPS for continuity Disconnect P/J27, P/J10, P/J102 and P/J101 from HARNESS ASSY LVPS. Is there continuity between J27 and J102?	Go to step 4.	Replace HAR- NESS ASSY LVPS.
4	Checking MOTOR ASSY EXIT power source voltage Disconnect P/J101 from PWBA EXIT MOTOR. Is the voltage across J101-2(+) and J101-1(-), 24 VDC?	Go to step 5.	Replace LVPS. (RRP12.3)
5	Checking PWBA EXIT MOTOR Replace PWBA EXIT MOTOR. (RRP12.2) Is the problem cleared, after replacement?	End of work	Replace HVPS/ MCU. (RRP12.10)

FIP1.38 CLUTCH REGI

Step	Check	Yes	No
	Possible causes: CLUTCH REGI (PL5.1.23) HARNESS ASSY CHUTE (PL12.1.17) HARNESS ASSY TRAY1 (PL5.1.37) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Checking HARNESS ASSY CHUTE for continuity Disconnect P/J24 from HVPS/MCU. Is there continuity between J24-14 and J245-5? J24-15 and J245-4?	Go to step 2.	Replace HAR- NESS ASSY CHUTE.
2	Checking HARNESS ASSY TRAY1 for continuity Remove CLUTCH REGI. Disconnect P/J245. Is there continuity between P/J245-9 and P/J243-2? P/J245-10 and P/J243-1?	Go to step 3.	Replace HAR- NESS ASSY TRAY1.
3	Checking the resistance of CLUTCH REGI Is the resistance of the wire wound resistor between P/J243-1 and P/J243-2 of CLUTCH REGI, 172 ohm +/- 10% (at 20 °C)?	Go to step 4.	Replace CLUTCH REGI. (RRP5.6)
4	Checking HVPS/MCU for continuity Disconnect P/J24 and P/J10 from HVPS/MCU. Is J24-14 and J10-1?	Go to FIP1.24 LVPS.	Replace HVPS/ MCU. (RRP12.10)

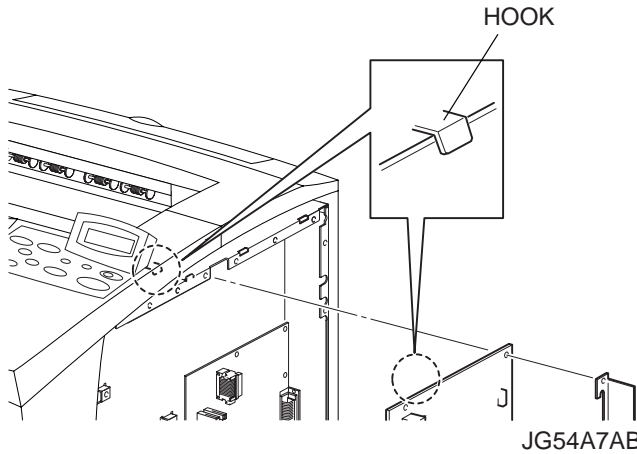
FIP1.39 CLUTCH ASSY PH

Step	Check	Yes	No
	Possible causes: CLUTCH ASSY PH (PL5.1.21, PL7.1.20) HARNESS ASSY TRAY1 (PL5.1.37) HARNESS ASSY TRAY2 (PL7.1.36) HARNESS ASSY CHUTE (PL12.1.17) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Checking HARNESS ASSY CHUTE for continuity Disconnect P/J24 from HVPS/MCU. Is there continuity between J24-13 and J245-6? J24-12 and J245-7? J24-5 and J248-1? J24-4 and J248-2?	Go to step 2.	Replace HAR- NESS ASSY CHUTE.
2	Checking HARNESS ASSY TRAY1 and TRAY2 for continuity. Remove CLUTCH ASSY PH. Disconnect P/J245 or P/J248. Is there continuity between P/J245-8 and P/J242-1? P/J245-7 and P/J242-2? P/J248-5 and P/J247-1? P/J248-4 and P/J247-2?	Go to step 3.	Replace HAR- NESS ASSY TRAY1 or TRAY2.
3	Checking the resistance of CLUTCH ASSY PH Is each resistance of the wire wound resistor between P/J242-1 and P/J242-2, and P/J247-1 and P/J247-2 of CLUTCH ASSY PH, 172 ohm +/-10% (at 20 °C)?	Go to step 4.	Replace CLUTCH ASSY PH. (RRP5.6, 7.5)
4	Checking HVPS/MCU for continuity Disconnect P/J24 and P/J10 from HVPS/MCU. Is there continuity between J24-12 and J10-1? J24-4 and J10-1?	Go to FIP1.24 LVPS.	Replace HVPS/ MCU. (RRP12.10)

FIP1.40 GUIDE TRAY LEFT

Step	Check	Yes	No
	Possible causes: GUIDE TRAY LEFT (PL7.1.7) HARNESS ASSY LVPS (PL12.1.1) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Checking HARNESS ASSY LVPS for continuity Disconnect P/J18 from HVPS/MCU. Disconnect P/J1821. Is each cable between J18 and J1821 continuous?	Go to step 2.	Replace HAR- NESS ASSY LVPS.
2	Checking GUIDE TRAY LEFT for continuity Is each cable between Tray1 Size Switch and J1821, and Tray2 Size Switch and J1821 of GUIDE TRAY LEFT continuous?	Go to FIP1.41 HVPS/MCU.	Replace GUIDE TRAY LEFT. (RRP7.8)

FIP1.41 HVPS/MCU

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) GUIDE ASSY CRU R (PL8.1.25) EP CARTRIDGE HARNESS ASSY ANT (PL8.1.24) HARNESS ASSY LVPS (PL12.1.1)		
1	<p>Checking the power by GUIDE ASSY CRU R Is GUIDE ASSY CRU R installed appropriately? Does the conducting part of GUIDE ASSY CRU R make contact with the plate of HVPS/MCU and EP CARTRIDGE appropriately? Confirm whether HVPS/MCU is assembled under the hook of FRAME.</p> 	Go to step 2.	Replace GUIDE ASSY CRU R. (RRP8.13) Work over the installation of HVPS/MCU again. (RRP12.10)
2	<p>Checking GUIDE ASSY CRU R Remove GUIDE ASSY CRU R. (RRP8.13) Is the Plate Earth of GUIDE ASSY CRU R damaged or soiled?</p>	Go to step 3.	Replace GUIDE ASSY CRU R. (RRP8.13)
3	<p>Checking 24 V to HVPS/MCU Remove EP CARTRIDGE. Is the voltage across P/J10-1(+) and P/J10-4(-) on HVPS/MCU, 24 VDC?</p>	Go to step 5.	Go to step 4.
4	<p>Checking HARNESS ASSY LVPS for continuity Disconnect P/J10 from HVPS/MCU. Disconnect P/J42 from LVPS. Is there continuity between P/J10 and P/J42?</p>	Go to FIP1.24 LVPS.	Replace HARNESS ASSY LVPS.
5	<p>Checking HARNESS ASSY ANT for continuity Disconnect P/J15 from HVPS/MCU. Is J15 and J150?</p>	Replace HVPS/MCU. (RRP12.10)	Replace HARNESS ASSY ANT.

FIP1.42 Electrical Noise

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) GUIDE ASSY CRU R (PL8.1.25) FUSER ASSY (PL8.1.20) EP CARTRIDGE HARNESS ASSY ANT (PL8.1.24) HARNESS ASSY AC100V/200V (PL12.1.8) HARNESS ASSY LVPS (PL12.1.1) Option 550 Paper Feeder PWBA FEEDER 550 (PL20.1.34) PWBA DUPLEX (PL21.1.32)		
1	Checking a foreign noise Are there any other electrical appliances within 3 m of the printer, such as generators, radios and appliances with motors? Either turn off the other electrical appliances, or re-locate the printer at least 6 m from other appliances. Does the electrical noise problem still occur?	Go to step 2.	End of work
2	Checking AC ground Is AC power supply outlet wired and grounded appropriately?	Go to step 3.	Request the client to fix AC power supply outlet.
3	Checking HARNESS ASSY AC100V/200V Is the cable connected to HARNESS ASSY AC100V/200V appropriately grounded?	Go to step 4.	Install the ground screw appropriately.
4	Checking after replacing EP CARTRIDGE Replace EP CARTRIDGE. Does the electrical noise problem still occur, after replacement?	Go to step 5.	End of work
5	Checking GUIDE ASSY CRU R (1) Does the Plate Earth of GUIDE ASSY CRU R contact terminals on HVPS/MCU appropriately?	Go to step 6.	Replace GUIDE ASSY CRU R. (RRP8.13)
6	Checking GUIDE ASSY CRU R (2) Remove EP CARTRIDGE. Remove GUIDE ASSY CRU R. (RRP8.13) Is the Plate Earth of GUIDE ASSY CRU R normal and not damaged or soiled, or there is no disturbing object?	Go to step 7.	Clean the plate or replace GUIDE ASSY CRU R. (RRP8.13)
7	Checking HARNESS ASSY ANT for continuity Disconnect P/J15 from HVPS/MCU. Is there continuity between J15 and J150?	Go to step 8.	Replace HARNESS ASSY ANT.

Step	Check	Yes	No
8	<p>Checking PWB ground Remove SHIELD PLATE LVPS (PL12.1.3) and SHIELD PLATE HVPS (PL12.1.8). (RRP12.1, 12.9) Is the ground normal? Are screws for ground of the following PWBs firmly tightened? All screws of HVPS/MCU (PL12.1.19) All screws of LVPS (PL12.1.5)</p> <p>When Option 550 Paper Feeder is installed: Are screws of PWBA FEEDER 550 firmly tightened?</p> <p>When Option Duplex is installed: Are screws of PWBA DUPLEX firmly tightened?</p> <p>When Option OCT is installed: Are screws of PWBA OCT firmly tightened?</p>	Go to step 9.	Restore the inappropriate ground.
9	<p>Checking after replacing FUSER ASSY Warning; Start the operation after the FUSER ASSY has cooled down. Replace FUSER ASSY. (RRP8.8) Does the problem still occur, after replacement?</p>	Go to step 10.	End of work
10	<p>Checking after replacing HVPS/MCU Replace HVPS/MCU. (RRP12.10) Does the problem still occur, after replacement?</p>	Replace all related parts.	End of work

FIP1.43 MOTOR ASSY EXIT

Step	Check	Yes	No
	Possible causes: MOTOR ASSY EXIT (PL10.1.15) HARNESS ASSY LVPS (PL12.1.1) PWBA EXIT MOTOR (PL12.1.4) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Checking MOTOR ASSY EXIT. Not using DIAG tool: Replace MOTOR ASSY EXIT (RRP10.5) Is the problem cleared?	End of work	Go to step 3.
	Using DIAG tool: Does the MOTOR ASSY EXIT rotate? Check using Chapter 2 Diagnostic: [Exit Motor, Clockwise Test] [Exit Motor, Counterclockwise, High Speed Test] [Exit Motor, Counterclockwise, Low Speed Test]	End of work	Go to step 2.
2	Checking MOTOR ASSY EXIT Replace MOTOR ASSY EXIT. (RRP10.5) Is the problem cleared?	End of work	Go to step 3.
3	Checking HARNESS ASSY LVPS for continuity Disconnect P/J27, P/J10, P/J102 and P/J101 of HARNESS ASSY LVPS. Is there continuity between J27 and J102?	Go to step 4.	Replace HARNESS ASSY LVPS.
4	Checking the power to MOTOR ASSY EXIT Disconnect P/J101 from PWBA EXIT MOTOR. Is the voltage across J101-2(+) and J101-1(-), 24 VDC?	Go to step 5.	Replace LVPS. (RRP12.3)
5	Checking PWBA EXIT MOTOR Replace PWBA EXIT MOTOR. (RRP12.2) Is the problem cleared, after replacement?	End of work	Replace HVPS/MCU. (RRP12.10)

FIP1.44 SENSOR FACE UP OPEN

Step	Check	Yes	No
	Possible causes: SENSOR FACE UP OPEN (PL10.1.25) GATE FU (PL10.2.6) LEVER GATE FU (PL10.2.17) HARNESS ASSY EXIT SNR (PL10.1.27) HVPS/MCU (PL12.1.19)		
1	Checking GATE FU for operation Open COVER ASSY REAR 500. Move LEVER GATE FU up and down. Does GATE FU operate smoothly? Does the actuator go into the sensor detecting point when LEVER GATE FU is moved up, and out of the detecting point when down?	With tool Go to step 2. Without tool Go to step 3.	Replace LEVER GATE FU and GATE FU.
2	Checking SENSOR FACE UP OPEN for operation (1) Remove EP CARTRIDGE. Close COVER ASSY REAR 500. Move LEVER GATE FU up and down. Does the number increase one by one, every time LEVER GATE FU operates? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to step 3.
3	Checking HARNESS ASSY EXIT SNR for continuity Remove 500 EXIT ASSY (PL10.1.2) (RRP10.2) Remove HARNESS ASSY EXIT SNR. Is there continuity between J29-4 and J291-3? J29-5 and J291-2? J29-6 and J291-1?	Go to step 4.	Replace HARNESS ASSY EXIT SNR.
4	Checking SENSOR FACE UP OPEN for operation Replace SENSOR FACE UP OPEN. (RRP10.6) Is the problem cleared?	End of work	Replace HVPS/MCU. (RRP12.10)

FIP1.45 SENSOR FULL STACK

Step	Check	Yes	No
	Possible causes: SENSOR FULL STACK (PL10.1.26) ACTUATOR FULL STACK (PL10.1.10) HARNESS ASSY EXIT SNR (PL10.1.27) HVPS/MCU (PL12.1.19)		
1	Checking ACTUATOR FULL STACK Open COVER ASSY REAR 500. Move ACTUATOR FULL STACK with a finger. Does ACTUATOR FULL STACK operate smoothly? Does the flag go into the sensor detecting point when there is low paper, and out of the detecting point when full?	With tool Go to step 2. Without tool Go to step 3.	Replace ACTUATOR FULL STACK.
2	Checking SENSOR FULL STACK (1) Remove EP CARTRIDGE. Close COVER ASSY REAR 500. Move ACTUATOR FULL STACK up and down. Does the number increase one by one, every time ACTUATOR FULL STACK operates? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to step 3.
3	Checking HARNESS ASSY EXIT SNR for continuity Remove 500 EXIT ASSY (PL10.1.2) (RRP10.2) Remove HARNESS ASSY EXIT SNR. Is there continuity between J29-1 and J290-3? J29-2 and J290-2? J29-3 and J290-1?	Go to step 4.	Replace HARNESS ASSY EXIT SNR.
4	Checking SENSOR FULL STACK (2) Replace SENSOR FULL STACK. (RRP10.7) Is the problem cleared?	End of work	Replace HVPS/MCU. (RRP12.10)

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Duplex Option

4.3 Error/Status Code List

Status Code	Error Contents	Error Description	FIP to be referred
STATUS 3-1	JS0	STATUS 3-1 to 3-5 indicates JAM by combination of Table 1-1.	
STATUS 3-2	JS1		
STATUS 3-3	JS2		
STATUS 3-4	JS3		
STATUS 3-5	JS4		
STATUS 17-3	Duplex Cover Open	-Cover of Option Duplex is open.	FIP2.1
STATUS 17-6	Duplex Unit Fail	- Option Duplex removed after powering on.	FIP2.2 FIP2.7
STATUS 21-1	Illegal Size (Duplex/OCT)	- Paper size that is not supported in Duplex or OCT mode is selected.	FIP2.6 FIP3.5

4.4 Table 1

JS4	JS3	JS2	JS1	JS0	Contents of Jam	Error Description	FIP to be referred
0	0	1	0	0	Duplex Jam 1	Paper Jam/Dup to Regi -When the paper reached Regi position from Duplex Sensor earlier than the specified time.	FIP2.4
0	1	1	0	0	Duplex Jam 2	Paper Jam/Exit to Dup -When the paper did not reach Duplex Sensor within the specified time.	FIP2.3
1	0	1	0	0	Duplex Jam 3	Paper Jam/Dup to Regi -When the paper was not fed to Duplex Sensor within the specified time. - When Duplex Sensor turned ON in warming up.	FIP2.4
1	1	1	0	0	Duplex Jam 4 (Misfeed Jam)	Paper Jam/Misfeed -When the paper did not reach Regi position from Duplex Sensor within the specified time.	FIP2.5

4.5 Level 1 FIP

FIP2.1 Option Duplex Cover Error

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) HSG LOWER DUP (PL21.1.6) COVER HSG DUP (PL21.1.18) SWITCH DUPLEX (PL21.1.27) PWBA DUPLEX (PL21.1.32)		
1	Checking COVER HSG DUP Open COVER HSG DUP. Is the rib on HSG LOWER DUP to push down SWITCH DUPLEX damaged?	Replace HSG LOWER DUP. (RRP21.3)	With tool Go to step 2. Without tool Go to FIP2.11 SWITCH DUPLEX.
2	Checking SWITCH DUPLEX for function Remove EP CARTRIDGE. Does number of Sensor/Switch Check increase by one, every time COVER HSG DUP is opened and closed? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to FIP2.11 SWITCH DUPLEX.

FIP2.2 Option Duplex Error

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) PWBA DUPLEX (PL21.1.32) HARNESS ASSY DUP (PL21.1.7)		
1	Checking Option Duplex installation Does Error still occur, after removing Option Duplex once, reinstalling, and then turning the power ON?	Go to FIP2.8 PWBA DUPLEX.	End of work

FIP2.3 Paper Jam/Exit to Dup

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) SENSOR DUP (PL21.1.34) ACTUATOR DUP (PL21.1.37) ROLL DUP (PL21.1.17) ROLL PINCH (PL21.1.4) MOTOR DUPLEX (PL21.1.29)		
1	Does Error occur, when the power is turned ON?	Go to step 2.	Go to step 4.
2	Checking the paper at ACTUATOR DUP Open COVER HSG DUP. Does the paper remain at ACTUATOR DUP?	Remove the paper, and go to step 3.	Go to FIP2.10 SENSOR DUP.
3	Does Error occur, when the power is turned ON?	Go to FIP2.10 SENSOR DUP.	Go to step 4.
4	Checking Option Duplex installation Remove Option Duplex, and then reinstall. Does Error occur, when running a test print by Duplex printing?	Go to step 5.	End of work
5	Checking paper position (1) Open COVER HSG DUP. Does the front end of paper reach the top roller of ROLL DUP?	Go to step 6.	Replace FUSER ASSY. (RRP8.8)
6	Checking transmission of driving force Remove COVER LEFT (PL21.1.25). Do ROLL DUP and every Gear rotate smoothly? Turn the gear with a finger to check.	Go to step 7.	Replace the disturbing part of rotation.
7	Checking ROLL DUP and ROLL PINCH Open COVER HSG DUP and insert paper, and then close it. Is the paper transferred smoothly? Turn the upper GEAR ROLL (PL21.1.20) clockwise with a finger, and check paper transfer.	Go to step 8.	Replace the disturbing roll of transfer.
8	Checking MOTOR DUPLEX Does MOTOR DUPLEX rotate normally? Check using Chapter 2 Diagnostic [Duplex Motor, Clockwise Normal Speed Test].	Replace HVPS/MCU. (RRP12.10)	Go to FIP2.9 MOTOR DUPLEX.

FIP2.4 Paper Jam/Dup to Regi

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) FDR1 AS SUB 150 A4 (PL5.1.2) SENSOR DUP (PL21.1.34) ACTUATOR DUP (PL21.1.37) ROLL DUP (PL21.1.17) ROLL PINCH (PL21.1.4) MOTOR DUPLEX (PL21.1.29)		
1	Checking Option Duplex installation Remove Option Duplex, and then reinstall. Does Error still occur, when a test print is run by Duplex print?	Go to step 2.	End of work
2	Checking FDR1 AS SUB 150 A4 Is FDR1 AS SUB 150 A4 installed correctly?	Go to step 3.	Reinstall FDR1 AS SUB 150 A4 correctly.
3	Checking transmission of driving force Remove COVER LEFT (PL21.1.25). Do ROLL DUP and every Gear rotate smoothly? Turn the gear with a finger to check.	Go to step 4.	Replace the parts disturbing rotation.
4	Checking ROLL DUP and ROLL PINCH Open COVER HSG DUP and insert paper, and then close it. Do ROLL DUP and every Gear rotate smoothly? Turn the upper GEAR ROLL (PL21.1.20) clockwise with a finger, and check paper transfer.	Go to step 5.	Replace the parts disturbing transfer.
5	Checking MOTOR DUPLEX Does MOTOR DUPLEX rotate normally? Check using Chapter 2 Diagnostic [Duplex Motor, Clockwise Normal Speed Test].	Replace HVPS/MCU. (RRP12.10)	Go to FIP2.9 MOTOR DUPLEX.

FIP2.5 Paper Jam/Duplex Misfeed

Step	Check	Yes	No
	Possible causes: FDR1 AS SUB 150 A4 (PL5.1.2) HVPS/MCU (PL12.1.19) ROLL DUP (PL21.1.17) ROLL PINCH (PL21.1.4) MOTOR DUPLEX (PL21.1.29)		
1	Checking Option Duplex installation Remove Option Duplex, and then reinstall. Does Error occur, when Test Printing a Duplex print?	Go to step 2.	End of work
2	Checking FDR1 AS SUB 150 A4 Is FDR1 AS SUB 150 A4 installed correctly?	Go to step 3.	Reinstall FDR1 AS SUB 150 A4 correctly.
3	Checking transmission of driving force Remove COVER LEFT (PL21.1.25). Do ROLL DUP and every Gear rotate smoothly? Turn the gear with a finger to check.	Go to step 4.	Replace the parts disturbing rotation.
4	Checking ROLL DUP and ROLL PINCH Open COVER HSG DUP and insert paper, and then close it. Is the paper transferred smoothly? Turn the upper GEAR ROLL (PL21.1.20) clockwise with a finger to check paper transfer.	Go to step 5.	Replace the parts disturbing transfer.
5	Checking MOTOR DUPLEX Does MOTOR DUPLEX rotate normally? Check using Chapter 2 Diagnostic [Duplex Motor, Clockwise Normal Speed Test].	Replace HVPS/MCU. (RRP12.10)	Go to FIP2.9 MOTOR DUPLEX.

FIP2.6 Paper Size Error/Duplex

Step	Check	Yes	No
1	Possible causes: HVPS/MCU (PL12.1.19) GUIDE TRAY LEFT (PL7.1.7) PWBA FEEDER 550 (PL20.1.34) Checking paper size Is the paper size capable for duplex printing?	Go to step 2.	Replace the paper.
2	Checking the paper size setup Does the paper size in use match the size set by GUIDE ASSY END?	Go to step 3.	Change the paper size setup.
3	Checking NVRAM data Does NV01 setup match the specification of printer?	Go to step 4.	Modify the memory data of NV01.
4	Checking the paper tray (1) Is it Tray 1 that is in use, when Error occurred?	Replace HVPS/ MCU. (RRP12.10)	Go to step 5.
5	Checking the paper tray (2) Is it Tray 2 that is in use, when Error occurred?	Replace HVPS/ MCU. (RRP12.10)	Go to step 6.
6	Checking the paper tray (3) Is it Tray 3 that is in use, when Error occurred?	Go to FIP4.6, 4.7 PWBA FEEDER 550.	Go to step 7.
7	Checking the paper tray (4) Is it Tray 4 that is in use, when Error occurred?	Go to FIP4.6, 4.7 PWBA FEEDER 550.	Replace HVPS/ MCU. (RRP12.10)

FIP2.7 No Recognition of Option Duplex

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) HARNESS ASSY LVPS (PL12.1.1) PWBA DUPLEX (PL21.1.32) HARNESS ASSY DUP (PL21.1.7)		
1	Checking Option Duplex detection signal (1) Remove PWBA DUPLEX. (RRP21.5) Remove HARNESS ASSY DUP. Connect J2750 of HARNESS ASSY DUP to P2750 of HARNESS ASSY LVPS. Is the voltage across P2750-5(+) and J2750-6(-), 3.3VDC?	Go to step 4.	Go to step 2.
2	Checking Option Duplex detection signal (2) Is the voltage across P/J27-4(+) and P/J27-3(-) on HVPS/MCU, 3.3 VDC?	Go to step 3.	Replace HVPS/MCU. (RRP12.10)
3	Checking HARNESS ASSY LVPS for continuity Remove HARNESS ASSY LVPS. Is there continuity between each of the following? J27-4 and J2750-5 J27-3 and J2750-6 J27-2 and J2750-7 J27-1 and J2750-8	Go to step 4.	Replace HARNESS ASSY LVPS.
4	Checking HARNESS ASSY DUP for continuity Disconnect connectors of HARNESS ASSY DUP. Is there continuity between each of the following? J2750-3 and J50-8 J2750-4 and J50-7 J2750-5 and J50-6 J2750-6 and J50-5	Replace PWBA DUPLEX. (RRP21.5)	Replace HARNESS ASSY DUP.

4.6 Level 2 FIP

FIP2.8 PWBA DUPLEX

Step	Check	Yes	No
	Possible causes: PWBA DUPLEX (PL21.1.32) HARNESS ASSY DUP (PL21.1.7) HVPS/MCU (PL12.1.19) HARNESS ASSY LVPS (PL12.1.1)		
1	Checking HARNESS ASSY DUP for continuity Remove Option Duplex. Disconnect P/J50 from PWBA DUPLEX. Is there continuity between J2750 and J50?	Go to step 2.	Replace HAR- NESS ASSY DUP.
2	Checking HARNESS ASSY LVPS for continuity Disconnect P/J27 from HVPS/MCU. Is there continuity between J27 and J2750?	Go to step 3.	Replace HAR- NESS ASSY LVPS.
3	Checking after replacing PWBA DUPLEX Replace PWBA DUPLEX. (RRP21.5) Is the problem cleared, after replacement?	End of work	Replace HVPS/ MCU. (RRP12.10)

FIP2.9 MOTOR DUPLEX

Step	Check	Yes	No
	Possible causes: MOTOR DUPLEX (PL21.1.29) PWBA DUPLEX (PL21.1.32) HARNESS ASSY DUP (PL21.1.7) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) HARNESS ASSY LVPS (PL12.1.1)		
1	Checking HARNESS ASSY DUP for continuity Remove Option Duplex. Disconnect P/J50 from PWBA DUPLEX. Does each cable between J2750 and J50 have continuity?	Go to step 2.	Replace HAR- NESS ASSY DUP.
2	Checking HARNESS ASSY LVPS for continuity Disconnect P/J27 from HVPS/MCU. Does each cable between J27 and J2750 have continuity?	With tool Go to step 3. Without tool Go to step 4.	Replace HAR- NESS ASSY LVPS.
3	Checking MOTOR DUPLEX for rotation Does the motor rotate? Check by the rotating sound of the motor. Check using Chapter 2 Diagnostic [Duplex Motor, Clockwise Normal Speed Test].	Replace HVPS/ MCU. (RRP12.10)	Go to step 4.
4	Checking after replacing MOTOR DUPLEX Replace MOTOR DUPLEX. Is the problem cleared after replacing the MOTOR DUPLEX?	End of work	Go to step 5.
5	Checking the power to MOTOR DUPLEX Is the voltage across P/J27-8(+) and P/J27-7(-) on HVPS/MCU, 24 VDC?	Go to FIP2.8 PWBA DUPLEX.	Go to step 6.
6	Checking HVPS/MCU for continuity Disconnect P/J10 and P/J27 from HVPS/MCU. Is there continuity between P10-1 and P27-8?	Go to FIP1.24 LVPS.	Replace HVPS/ MCU. (RRP12.10)

FIP2.10 SENSOR DUP

Step	Check	Yes	No
	Possible causes: SENSOR DUP (PL21.1.34) ACTUATOR DUP (PL21.1.37) HARNESS ASSY DUP SNR (PL21.1.35) PWBA DUPLEX (PL21.1.32) HARNESS ASSY DUP (PL21.1.7) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) HARNESS ASSY LVPS (PL12.1.1)		
1	Checking ACTUATOR DUP for operation Does ACTUATOR DUP operate smoothly? Does the flag go into the sensor detecting area when there is no paper in the Option Duplex, and out of the detecting area when the paper is set?	With tool Go to step 2. Without tool Go to step 3.	Replace ACTUATOR DUP.
2	Checking SENSOR DUP (1) Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Open COVER HSG DUP (PL21.1.18) and keep open. Does the number increase one by one, every time ACTUATOR DUP operates? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to step 4.
3	Checking SENSOR DUP (2) Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Open COVER HSG DUP (PL21.1.18) and keep open. Is the voltage across P/J53-3(+) and P/J53-2(-), 0 VDC when ACTUATOR DUP is pushed, and 3.3 VDC when released?	Replace HVPS/MCU. (RRP12.10)	Go to step 4.
4	Checking SENSOR DUP (3) Replace SENSOR DUP. (RRP21.7) Does the problem still occur after replacement.	Go to step 5.	End of work
5	Checking HARNESS ASSY DUP SNR for continuity Remove SENSOR DUP. Disconnect P/J53 from PWBA DUPLEX. Does each cable between J53 and J530 have continuity?	Go to step 6.	Replace HARNESS ASSY DUP SNR.
6	Checking HARNESS ASSY DUP for continuity Remove HARNESS ASSY DUP. Is there continuity between J50 and J2750?	Go to step 7.	Replace HARNESS ASSY DUP.
7	Checking HARNESS ASSY LVPS for continuity Remove HARNESS ASSY LVPS. Is there continuity between J27 and J2750?	Go to step 8.	Replace HARNESS ASSY LVPS.
8	Checking HVPS/MCU for continuity Disconnect P/J11 from HVPS/MCU. Is there continuity between P11-16 and P27-4?	Go to FIP1.24 LVPS.	Replace HVPS/MCU. (RRP12.10)

FIP2.11 SWITCH DUPLEX

Step	Check	Yes	No
	Possible causes: SWITCH DUPLEX (PL21.1.27) HARNESS ASSY LVPS (PL12.1.1) HARNESS ASSY DUP COVER (PL21.1.31) PWBA DUPLEX (PL21.1.32) HARNESS ASSY DUP (PL21.1.7) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Checking SWITCH DUPLEX for continuity Remove SWITCH DUPLEX. Is J520-2 and J520-1 continuous, when SWITCH DUPLEX is pushed, and cut when released?	Go to step 2.	Replace SWITCH DUPLEX. (RRP21.12)
2	Checking HARNESS ASSY DUP COVER for continuity Remove HARNESS ASSY DUP COVER. Is there continuity between J52 and J520?	Go to step 3.	Replace HARNESS ASSY DUP COVER.
3	Checking HARNESS ASSY DUP for continuity Remove HARNESS ASSY DUP. Is there continuity between J50 and J2750?	Go to step 4.	Replace HARNESS ASSY DUP.
4	Checking HARNESS ASSY LVPS for continuity Remove HARNESS ASSY LVPS. Is there continuity between J27 and J2750?	Go to step 5.	Replace HARNESS ASSY LVPS.
5	Checking the voltage of SWITCH DUPLEX Remove EP Cartridge. Is the voltage across P/J27-4(+) and P/J27-3(-) on HVPS/MCU, 3.3 VDC?	Go to FIP2.8 PWBA DUPLEX.	Go to step 6.
6	Checking HVPS/MCU for continuity Disconnect P/J27 from HVPS/MCU. Is there continuity between P27-4 and P11-16?	Replace HVPS/MCU. (RRP12.10)	Go to FIP1.24 LVPS.

OCT Option

4.7 Error/Status Code List

Status Code	Error Contents	Error Description	FIP to be referred
STATUS 3-1	JS0	STATUS 3-1 to 3-5 indicates JAM by combination of Table 1-1.	
STATUS 3-2	JS1		
STATUS 3-3	JS2		
STATUS 3-4	JS3		
STATUS 3-5	JS4		
STATUS 16-5	Full Stack (OCT)	-Option OCT became Full Stack.	FIP3.6
STATUS 17-2	OCT Cover Open	- Cover of Option OCT is open.	FIP3.1
STATUS 17-5	OCT Unit Fail	- Option OCT is not installed when OCT mode is selected.	FIP3.2 FIP3.7
STATUS 21-1	Illegal Size (Duplex/OCT)	- Paper size that is not supported in Duplex or OCT mode is selected.	FIP2.6 FIP3.5

Table 1-1

JS4	JS3	JS2	JS1	JS0	Contents of Jam	Error Description	FIP to be referred
0	1	1	0	1	OCT Jam 1	Paper Jam/Exit to OCT - When the paper did not reach to OCT Sensor from Exit Sensor within the specified time.	FIP3.3
1	0	1	0	1	OCT Jam 2	Paper Jam/OCT -When the paper was not fed to OCT Sensor within the specified time. - When OCT Sensor turned ON in warming up.	FIP3.4

4.8 Level 1 FIP

FIP3.1 Option OCT Cover Error

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) PWBA OCT (PL23.1.22) COVER REAR (PL23.1.4) COVER OCT (PL23.1.1) S/W REAR COVER (PL23.1.18) HARNESS ASSY REAR COVER (PL23.1.29)		
1	Checking COVER REAR Is the rib on COVER REAR to push down S/W REAR COVER damaged?	Replace Cover REAR. (RRP23.2)	With tool Go to step 2. Without tool, Go to FIP3.1 S/W REAR COVER.
2	Checking S/W REAR COVER for function Remove EP CARTRIDGE. Does the number of Sensor/Switch Check increase by one, every time COVER REAR is opened and closed? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to FIP3.1 S/W REAR COVER.

FIP3.2 Option OCT Error

Step	Check	Yes	No
	Possible causes: HARNESS ASSY OCT1 (PL12.1.26) HVPS/MCU (PL12.1.19) PWBA OCT (PL23.1.22) HARNESS ASSY OCT2 (PL23.1.25)		
1	Checking Option OCT installation Remove Option OCT, reinstall and turn the power ON. Does Error still occur?	Go to FIP3.8 PWBA OCT.	End of work

FIP3.3 Paper Jam/Exit to OCT

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) SENSOR OCT (PL23.1.30) ACTUATOR OCT (PL23.1.31) ROLL OCT LOWER (PL23.1.16) ROLL OCT UPPER (PL23.1.36) ROLL PINCH (PL23.1.34) MOTOR ASSY OCT (PL23.1.6)		
1	Does Error occur, when the power is turned ON?	Go to step 2.	Go to step 4.
2	Checking the paper at ACTUATOR OCT Open COVER REAR. Does the paper remain at ACTUATOR OCT?	Remove the paper, and then go to step 3.	Go to FIP3.13 SENSOR OCT.
3	Does Error occur, when the power is turned ON?	Go to FIP3.13 SENSOR OCT.	Go to step 4.
4	Run a test print. Remove Option OCT, and then reinstall it. Does Error still occur, when Test Printing is run in OCT mode?	Go to step 5.	End of work
5	Checking transmission of driving force Do ROLL OCT LOWER, ROLL OCT UPPER and every GEAR rotate smoothly? Remove COVER OCT (RRP23.4), and turn ROLL OCT LOWER, ROLL OCT UPPER and every GEAR with a finger to check.	Go to step 6.	Replace the parts disturbing rotation.
6	Checking paper transfer at ROLL OCT LOWER and ROLL PINCH Insert paper between ROLL OCT LOWER and ROLL PINCH from lower portion of Option OCT. Is the paper transferred smoothly, when turning GEAR 19/ 37 (PL23.1.8) counterclockwise with a finger?	Go to step 7.	Replace the roll disturbing transfer.
7	Checking MOTOR ASSY OCT Does MOTOR ASSY OCT rotate normally? Check using Chapter 2 Diagnostic [OCT Motor Test].	Replace HVPS/MCU. (RRP12.10)	Go to FIP3.9 MOTOR ASSY OCT.

FIP3.4 Paper Jam/OCT

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) SENSOR OCT (PL23.1.30) ACTUATOR OCT (PL23.1.31) ROLL OCT LOWER (PL23.1.16) ROLL OCT UPPER (PL23.1.36) ROLL PINCH (PL23.1.34) MOTOR ASSY OCT (PL23.1.6)		
1	Does Error occur, when the power is turned ON?	Go to step 2.	Go to step 5.
2	Checking the paper at ACTUATOR OCT Open COVER REAR. Does the paper remain at ACTUATOR OCT?	Remove the paper, and then go to step 3.	Go to FIP3.13 SENSOR OCT.
3	Checking ACTUATOR OCT for operation Does ACTUATOR OCT move smoothly, when you move it?	Go to step 4.	Replace ACTUATOR OCT.
4	Does Error occur, when the power is turned ON?	Go to FIP3.13 SENSOR OCT.	Go to step 5.
5	Run a test print. Remove Option OCT, and then reinstall it. Does Error still occur, when Test Printing is run in OCT mode?	Go to step 6.	End of work
6	Checking transmission of driving force Do ROLL OCT LOWER, ROLL OCT UPPER and every GEAR rotate smoothly? Remove COVER OCT (RRP23.4), and turn ROLL OCT LOWER, ROLL OCT UPPER and every GEAR with a finger to check.	Go to step 7.	Replace the parts disturbing rotation.
7	Checking paper transfer at ROLL OCT LOWER and ROLL PINCH Insert paper between ROLL OCT LOWER and ROLL PINCH from lower portion of Option OCT. Is the paper transferred smoothly, when turning GEAR 19/ 37 (PL23.1.8) counterclockwise with a finger?	Go to step 8.	Replace the roll disturbing transfer.
8	Checking MOTOR ASSY OCT Does MOTOR ASSY OCT rotate normally? Check using Chapter 2 Diagnostic [OCT Motor Test].	Replace HVPS/MCU. (RRP12.10)	Go to FIP3.9 MOTOR ASSY OCT.

FIP3.5 Paper Size Error/OCT

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) GUIDE TRAY LEFT (PL7.1.7) PWBA FEEDER 550 (PL20.1.34)		
1	Checking the paper size setup Does the size of paper in use match the size set by GUIDE ASSY END?	Go to step 2.	Change the paper size setting.
2	Checking NVRAM data Does NV01 configuration 2 meet specifications?	Go to step 3.	Modify the memory data.
3	Checking the paper tray (1) Is the paper supplied from Tray 1, when Error occurred?	Replace HVPS/MCU. (RRP12.10)	Go to step 4.
4	Checking the paper tray (2) Is the paper supplied from Tray 2, when Error occurred?	Replace HVPS/MCU. (RRP12.10)	Go to step 5.
5	Checking the paper tray (3) Is the paper supplied from Tray 3, when Error occurred?	Go to FIP4.6, 4.7 PWBA FEEDER 550.	Go to step 6.
6	Checking the paper tray (4) Is the paper supplied from Tray 4, when Error occurred?	Go to FIP4.6, 4.7 PWBA FEEDER 550.	Replace HVPS/MCU. (RRP12.10)

FIP3.6 Full Stack Error/OCT

Step	Check	Yes	No
	Possible causes: Sensor Full Stack (On PWBA OCT) HVPS/MCU (PL12.1.19) PWBA OCT (PL23.1.22) ACTUATOR FULL STACK (PL23.1.15)		
1	Checking ACTUATOR FULL STACK for operation Does ACTUATOR FULL STACK move smoothly, when you move ACTUATOR FULL STACK at the paper outlet?	With tool Go to step 2. Without tool Go to step 3.	Replace ACTUATOR FULL STACK.
2	Checking Sensor Full Stack for operation Remove EP CARTRIDGE. Does the number of Sensor/Switch Check increase by one, when you push and release ACTUATOR FULL STACK at the paper outlet? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Go to step 3.	Go to FIP3.8 PWBA OCT.
3	Checking PWBA OCT Replace PWBA OCT. Does Error still occur, after installing a new PWBA OCT?	Replace HVPS/MCU. (RRP12.10)	End of work

FIP3.7 No Recognition of Option OCT

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) HARNESS ASSY OCT1 (PL12.1.26) PWBA OCT (PL23.1.22) HARNESS ASSY OCT2 (PL23.1.25)		
1	Checking Option OCT detection signal (1) Disconnect P/J70 on PWBA OCT. Is the voltage across J70-5(+) and J70-6(-) of HAR- NESS ASSY OCT2, 3.3 VDC?	Go to step 5.	Go to step 2.
2	Checking Option OCT detection signal (2) Is the voltage across P/J30-4(+) and P/J30-3(-) on HVPS/MCU, 3.3 VDC?	Go to step 3.	Replace HVPS/ MCU. (RRP12.10)
3	Checking HARNESS ASSY OCT2 for continuity Remove HARNESS ASSY OCT2. Is there continuity between J70 and J3070?	Go to step 4.	Replace HAR- NESS ASSY OCT2.
4	Checking HARNESS ASSY OCT1 for continuity Remove HARNESS ASSY OCT1. Is there continuity between J30 and J3070?	Go to step 5.	Replace HAR- NESS ASSY OCT1.
5	Checking PWBA OCT Replace PWBA OCT. Does the problem still occur, after replacing PWBA OCT with a new PWBA OCT.	Replace HVPS/ MCU. (RRP12.10)	End of work

4.9 Level 2 FIP

FIP3.8 PWBA OCT

Step	Check	Yes	No
	Possible causes: PWBA OCT (PL23.1.22) HARNESS ASSY OCT1 (PL12.1.26) HARNESS ASSY OCT2 (PL23.1.25) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5)		
1	Checking HARNESS ASSY OCT2 for continuity Remove Option OCT. (RRP23.1) Disconnect P/J70 from PWBA OCT. Remove HARNESS ASSY OCT2. Is there continuity between J70 and J3070?	Go to step 2.	Replace HAR- NESS ASSY OCT2.
2	Checking HARNESS ASSY OCT1 for continuity Remove HARNESS ASSY OCT1. Is there continuity between J30 and J3070?	Go to step 3.	Replace HAR- NESS ASSY OCT1.
3	Checking PWBA OCT Replace PWBA OCT. (RRP23.7) Does the problem still occur after replacement?	End of work	Replace HVPS/ MCU. (RRP12.10)

FIP3.9 MOTOR ASSY OCT

Step	Check	Yes	No
	Possible causes: MOTOR ASSY OCT (PL23.1.6) PWBA OCT (PL23.1.22) HARNESS ASSY OCT MOT (PL23.1.46) HARNESS ASSY OCT2 (PL23.1.25) HVPS/MCU (PL12.1.19) HARNESS ASSY OCT1 (PL12.1.26)		
1	Checking HARNESS ASSY OCT MOT for continuity Remove HARNESS ASSY OCT MOT. Is there continuity between J71 and J710?	With tool Go to step 2. Without tool Go to step 3.	Replace HARNESS ASSY OCT MOT.
	Checking MOTOR ASSY OCT		
2	Using DIAG tool: Does the MOTOR ASSY OCT rotate? (Check by the rotating sound of the motor.) Check using Chapter 2 Diagnostic [OCT Motor Test].	Go to step 4.	Go to step 3.
	Checking MOTOR ASSY OCT		
3	Not using DIAG tool: Replace MOTOR ASSY OCT. (RRP23.13) Is the problem cleared?	End of work	.Go to step 5.
4	Is the problem cleared?	End of work	Go to FIP3.8 PWBA OCT.
5	Checking HARNESS ASSY OCT2 for continuity Disconnect P/J70 from PWBA OCT. Remove HARNESS ASSY OCT2. Is there continuity between J70 and J3070?	Go to step 6.	Replace HARNESS ASSY OCT2.
6	Checking HARNESS ASSY OCT1 for continuity Remove HARNESS ASSY OCT1. Is there continuity between J30 and J3070?	Go to step 7.	Replace HARNESS ASSY OCT1.
7	Checking PWBA OCT Replace PWBA OCT. (RRP23.7) Is the problem cleared?	End of work	Replace HVPS/MCU (RRP12.10)

FIP3.10 MOTOR ASSY OFFSET

Step	Check	Yes	No
	Possible causes: MOTOR ASSY OFFSET (PL23.1.20) MOTOR ASSY OCT (PL23.1.6) PWBA OCT (PL23.1.22) HARNESS ASSY OCT2 (PL23.1.25) HVPS/MCU (PL12.1.19) HARNESS ASSY OCT1 (PL12.1.26)		
1	Checking MOTOR ASSY OFFSET Not using DIAG tool: Replace MOTOR ASSY OFFSET.(RRP23.8) Is the problem cleared?	End of work	Go to step 4.
	Using DIAG tool: Does the offset of CHUTE OFFSET ASSY operate normally? Check using Chapter 2 Diagnostic [OCT Offset Test].	Go to step 2.	Go to step 3.
2	Is the problem cleared?	End of work	Go to FIP3.8 PWBA OCT.
3	Checking MOTOR ASSY OFFSET Replace MOTOR ASSY OFFSET. (RRP23.8) Is the problem cleared?	End of work	Go to step 4.
4	Checking HARNESS ASSY OCT2 for continuity Disconnect P/J70 from PWBA OCT. Remove HARNESS ASSY OCT2. Is there continuity between J70 and J3070?	Go to step 5.	Replace HARNESS ASSY OCT2.
5	Checking HARNESS ASSY OCT1 for continuity Remove HARNESS ASSY OCT1. Is there continuity between J30 and J3070?	Go to step 6	Replace HARNESS ASSY OCT1.
6	Checking PWBA OCT Replace PWBA OCT. (RRP23.7) Is the problem cleared?	End of work	Replace HVPS/MCU. (RRP12.10)

FIP3.11 SOLENOID ASSY GATE

Step	Check	Yes	No
	Possible causes: SOLENOID ASSY GATE (PL23.1.27) P WBA OCT (PL23.1.22) HARNESS ASSY OCT2 (PL23.1.25) HVPS/MCU (PL12.1.19) HARNESS ASSY OCT1 (PL12.1.26)		
1	Checking SOLENOID ASSY GATE Not using DIAG tool: Replace SOLENOID ASSY GATE. (RRP23.9) Is the problem cleared?	End of work	Go to step 4.
	Using DIAG tool: Is the feed-switching operation of SOLENOID ASSY GATE correctly? Check using Chapter 2 Diagnostic [Option Direction Test].	Go to step 2.	Go to step 3.
2	Is the problem cleared?	End of work	Go to FIP3.8 PWBA OCT.
3	Checking SOLENOID ASSY GATE Replace SOLENOID ASSY GATE. (RRP23.9) Is the problem cleared?	End of work	Go to step 4.
4	Checking HARNESS ASSY OCT2 for continuity Disconnect P/J70 on PWBA OCT. Remove HARNESS ASSY OCT2. Is there continuity between J70 and J3070?	Go to step 5.	Replace HAR- NESS ASSY OCT2.
5	Checking HARNESS ASSY OCT1 for continuity Remove HARNESS ASSY OCT1. Is there continuity between J30 and J3070?	Go to step 6.	Replace HAR- NESS ASSY OCT1.
6	Checking PWBA OCT Replace PWBA OCT. (RRP23.7) Is the problem cleared?	End of work	Replace HVPS/ MCU. (RRP12.10)

FIP3.12 S/W REAR COVER

Step	Check	Yes	No
	Possible causes: S/W REAR COVER (PL23.1.18) HARNESS ASSY REAR COVER (PL23.1.29) PWBA OCT (PL23.1.22) HARNESS ASSY OCT2 (PL23.1.25) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) HARNESS ASSY OCT1 (PL12.1.26)		
1	Checking S/W REAR COVER for continuity (1) Remove S/W REAR COVER. Is J740-2 and J740-1 continuous, when S/W REAR COVER is pushed, and cut when released?	Go to step 2.	Replace S/W REAR COVER.
2	Checking HARNESS ASSY REAR COVER for continuity Remove HARNESS ASSY REAR COVER. Is there continuity between J74 and J740?	Go to step 3.	Replace S/W REAR COVER.
3	Checking HARNESS ASSY OCT2 for continuity Disconnect P/J70 from PWBA OCT. Remove HARNESS ASSY OCT2. Is there continuity between J70 and J3070?	Go to step 4.	Replace HARNESS ASSY OCT2.
4	Checking HARNESS ASSY OCT1 for continuity Remove HARNESS ASSY OCT1. Is there continuity between J30 and J3070?	Go to step 5.	Replace HARNESS ASSY OCT1.
5	Checking S/W REAR COVER (2) Remove EP CARTRIDGE. Is the voltage across P/J30-4(+) and P/J30-3(-) on HVPS/MCU, 3.3 VDC?	Go to FIP3.8 PWBA OCT.	Go to step 6.
6	Checking HVPS/MCU for continuity Disconnect P/J30 from HVPS/MCU. Is there continuity between P30-4 and P11-16?	Go to FIP1.24 LVPS.	Replace HVPS/MCU. (RRP12.10)

FIP3.13 SENSOR OCT

Step	Check	Yes	No
	Possible causes: SENSOR OCT (PL23.1.30) ACTUATOR OCT (PL23.1.31) HARNESS ASSY OCT SNR (PL23.1.26) PWBA OCT (PL23.1.22) HARNESS ASSY OCT2 (PL23.1.25) HVPS/MCU (PL12.1.19) HARNESS ASSY OCT1 (PL12.1.26)		
1	Checking ACTUATOR OCT for operation Remove Option OCT. (RRP23.1) Open COVER REAR. Move ACTUATOR OCT with a finger. Does ACTUATOR OCT operate smoothly? Does the flag go into the sensor detecting point when there is no paper, and out of the detecting point when the paper is set?	Go to step 2.	Replace ACTUATOR OCT.
2	Checking SENSOR OCT (1) Remove EP CARTRIDGE. Install Option OCT. (RRP23.1) Open COVER REAR. Move ACTUATOR OCT up and down. Does the number increase one by one, every time ACTUATOR OCT operates? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to step 3.
3	Checking HARNESS ASSY OCT SNR for continuity Remove HARNESS ASSY OCT SNR. Is there continuity between P/J73 and P/J730?	Go to step 4.	Replace HARNESS ASSY OCT SNR.
4	Checking HARNESS ASSY OCT2 for continuity Disconnect P/J70 from PWBA OCT. Remove HARNESS ASSY OCT2. Is there continuity between J70 and J3070?	Go to step 5.	Replace HARNESS ASSY OCT2.
5	Checking HARNESS ASSY OCT1 for continuity Remove HARNESS ASSY OCT1. Is there continuity between J30 and J3070?	Go to step 6.	Replace HARNESS ASSY OCT1.
6	Checking SENSOR OCT (2) Replace SENSOR OCT. (RRP23.10) Is the problem cleared?	End of work	Go to FIP3.8 PWBA OCT.

FIP3.14 Sensor Full Stack (On PWBA OCT)

Step	Check	Yes	No
	Possible causes: Sensor Full Stack (Mounted on PWBA OCT) ACTUATOR FULL STACK (PL23.1.15) PWBA OCT (PL23.1.22) HARNESS ASSY OCT2 (PL23.1.25) HVPS/MCU (PL12.1.19) HARNESS ASSY OCT1 (PL12.1.26)		
1	Checking ACTUATOR FULL STACK for operation Remove Option OCT. (RRP23.1) Move ACTUATOR FULL STACK with a finger. Does ACTUATOR FULL STACK operate smoothly? Does the flag go into the sensor detecting point when there is no paper, and out of the detecting point when the paper is set?	With tool Go to step 2. Without tool Go to step 3.	Replace ACTUATOR FULL STACK.
2	Checking Sensor Full Stack mounted on PWBA OCT (1) Remove EP CARTRIDGE. Install Option OCT. (RRP23.1) Move ACTUATOR FULL STACK up and down. Does the number increase one by one, every time ACTUATOR FULL STACK operates? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to step 3.
3	Checking HARNESS ASSY OCT2 for continuity Disconnect P/J70 from PWBA OCT. Remove HARNESS ASSY OCT2. Is there continuity between J70 and J3070?	Go to step 4.	Replace HARNESS ASSY OCT2.
4	Checking HARNESS ASSY OCT1 for continuity Remove HARNESS ASSY OCT1. Is there continuity between J30 and J3070?	Go to step 5.	Replace HARNESS ASSY OCT1.
5	Checking Sensor Full Stack mounted on PWBA OCT (2) Replace PWBA OCT. (RRP23.7) Is the problem cleared?	End of work	Replace HVPS/MCU. (RRP12.10)

FIP3.15 Sensor Offset (On PWBA OCT)

Step	Check	Yes	No
	Possible causes: Sensor Offset (Mounted on PWBA OCT) CHUTE OFFSET ASSY (PL23.1.35) PWBA OCT (PL23.1.22) HARNESS ASSY OCT2 (PL23.1.25) HVPS/MCU (PL12.1.19) HARNESS ASSY OCT1 (PL12.1.26)		
1	Checking the Actuator of CHUTE OFFSET for operation Remove Option OCT. (RRP23.1) Remove COVER OCT. (RRP23.4) Move the Actuator on CHUTE OFFSET with a finger. Does CHUTE OFFSET operate smoothly?	Go to step 2.	Replace CHUTE OFFSET ASSY.
2	Checking HARNESS ASSY OCT2 for continuity Disconnect P/J70 from PWBA OCT. Remove HARNESS ASSY OCT2. Is there continuity between J70 and J3070?	Go to step 3.	Replace HARNESS ASSY OCT2.
3	Checking HARNESS ASSY OCT1 for continuity Remove HARNESS ASSY OCT1. Is there continuity between J30 and J3070?	Go to step 4.	Replace HARNESS ASSY OCT1.
4	Checking Sensor Full Stack mounted on PWBA OCT (2) Replace PWBA OCT. (RRP23.7) Is the problem cleared?	End of work	Replace HVPS/MCU. (RRP12.10)

550 Paper Feeder Option

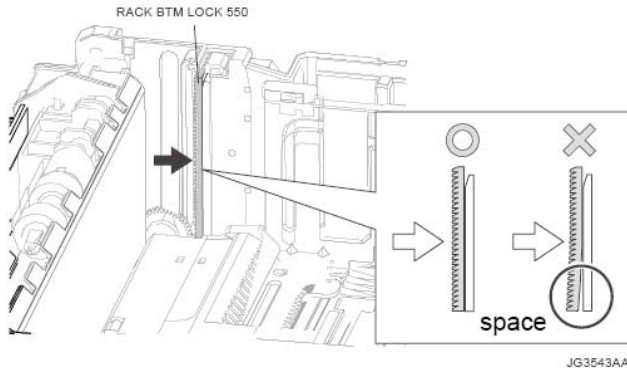
4.10 Error/Status Code List

Status Code	Error Contents	Error Description	FIP to be referred
STATUS 1-5	Cassette Fail	- Paper size is not specified.	FIP4.1
STATUS 15-3	Near end of paper in Tray 4	- Remaining paper in Tray 4 became low.	FIP4.3
STATUS 15-4	Near end of paper in Tray 3	- Remaining paper in Tray 3 became low.	FIP4.3
STATUS 16-3	Option Tray Unit Fail	- Option Tray is not installed when Option Tray is selected.	FIP4.4
STATUS 17-4	Inappropriate Opt FDR	- Inappropriate Option Feeder (for example JIGEN) is detected.	FIP4.5
STATUS 21-3	NO Paper in Tray 4	-No paper in Tray 4	FIP4.2
STATUS 21-4	NO Paper in Tray 3	-No paper in Tray 3	FIP4.2

4.11 Level 1 FIP**FIP4.1 No Tray/Tray 3, 4**

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) OPT ASSY SIZE (PL20.1.8) Option 550 Paper Feeder 550 PAPER CASSETTE (PL20.3.50)		
1	Does Error still occur, after removing and reinstalling the 550 PAPER CASSETTE of Option 550 Paper Feeder on Tray 3 or Tray 4?	Go to step 2.	End of work
2	Checking 550 PAPER CASSETTE Are GUIDE ASSY END, GEAR SECTOR, RACK SIZE and LINK SW SIZE1/2/3 of 550 PAPER CASSETTE of Tray 3 or Tray 4 installed correctly?	Go to FIP4.10 OPT ASSY SIZE.	Reinstall the parts causing Error.

FIP4.2 No Paper/Tray 3, 4

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) SENSOR NO PAPER (PL20.2.33) ACTUATOR NO PAPER (PL20.2.6) Option 550 Paper Feeder 550 PAPER CASSETTE (PL20.3.50) PLATE ASSY BTM (PL20.3.10) RACK BTM LOCK 550 (PL20.3.21) HOUSING BASE 550(PL20.3.44)		
1	Checking if there is any paper Is there any paper in Tray 3 or Tray 4?	Go to step 2.	Supply paper.
2	Is PLATE ASSY BTM (PL20.3.10) lifted correctly?	Go to step 3.	Remove 550 PAPER CASSETTE, and then reinstall it correctly.
3	With pressing down PLATE ASSY BTM, press the center area of RACK BTM LOCK 550 against HOUSING BASE 550. Are RACK BTM LOCK 550 and HOUSING BASE 550  <small>JG3543AA</small>	Go to step 4.	Work over the installation of RACK BTM LOCK 550 again.(RRP20.22)
4	Checking ACTUATOR NO PAPER for operation Remove 550 PAPER CASSETTE. When putting hand from the cassette insertion space of Tray 3 or Tray 4 to move ACTUATOR NO PAPER, does ACTUATOR NO PAPER move smoothly?	Go to step 5.	Replace ACTUATOR NO PAPER.
5	Checking SENSOR NO PAPER for operation Remove EP CARTRIDGE. When putting hand from the cassette insertion space of Tray 3 or Tray 4 to push and release ACTUATOR NO PAPER, does number of Sensor/Switch Check increase by one? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to FIP4.8 SENSOR NO PAPER.

FIP4.3 Low Paper in Tray/Tray 3, 4

Step	Check	Yes	No
	Possible causes: HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) SENSOR LOW PAPER (PL20.1.30) ACTUATOR LOW PAPER (PL20.1.31) PLATE ASSY BTM (PL20.3.10) Option 550 Paper Feeder 550 PAPER CASSETTE (PL20.3.50)		
1	Checking the sensor for operation Does Error still occur, after 550 PAPER CASSETTE filled with a specified amount of paper is inserted into Tray 3 or Tray 4?	Go to step 2.	End of work
2	Checking ACTUATOR LOW PAPER for function Remove 550 PAPER CASSETTE. Does ACTUATOR LOW PAPER move smoothly, when moving ACTUATOR LOW PAPER up and down? Does ACTUATOR LOW PAPER go into the sensor part of SENSOR LOW PAPER, when the flag is pushed up? Does ACTUATOR LOW PAPER go out of the sensor part of SENSOR LOW PAPER, when the flag is released?	Go to step 3.	Replace ACTUATOR LOW PAPER.
3	Checking PLATE ASSY BTM for operation Does PLATE ASSY BTM move ACTUATOR LOW PAPER normally, when PLATE ASSY BTM is pushed or released?	Go to FIP4.9 SENSOR LOW PAPER.	Replace PLATE ASSY BTM. (RRP20.21)

FIP4.4 No Recognition of Option 550 Paper Feeder

The description below is on the assumption that Option 550 Paper Feeder's are installed to Tray 3 and Tray 4.

Step	Check	Yes	No
	Possible causes: LVPS (PL12.1.5) HVPS/MCU (PL12.1.19) PWBA FEEDER 550 (PL20.1.34) HARNESS ASSY FDR2 (PL20.1.5) HARNESS ASSY FDR5 (PL20.1.26)		
1	Checking HARNESS ASSY FDR2 of Feeder equivalent to Tray 3 for continuity Remove Option 550 Paper Feeder. Disconnect P/J2083. Is there continuity between each of the following? J2083-1 and J83-10 J2083-2 and J83-9 J2083-3 and J83-8 J2083-4 and J83-7 J2083-5 and J83-6	Go to FIP4.6, 4.7 PWBA FEEDER 550. Go to step 2, when Tray 4 is not recognized.	Replace HAR- NESS ASSY FDR2.
2	Checking HARNESS ASSY FDR5 of Feeder equivalent to Tray 3 for continuity Remove Option 550 Paper Feeder. Disconnect P/J84 from PWBA FEEDER 550. Is there continuity between each of the following? J84-1 and J8483-10 J84-2 and J8483-9 J84-3 and J8483-8 J84-4 and J8483-7 J84-5 and J8483-6	Go to step 3.	Replace HAR- NESS ASSY FDR5.
3	Checking HARNESS ASSY FDR2 of Feeder equivalent to Tray 4 for continuity Remove Option 550 Paper Feeder. Disconnect P/J8483. Is there continuity between each of the following? J8483-1 and J83-10 J8483-2 and J83-9 J8483-3 and J83-8 J8483-4 and J83-7 J8483-5 and J83-6	Go to FIP4.6, 4.7 PWBA FEEDER 550.	Replace HAR- NESS ASSY FDR2.

FIP4.5 Inappropriate Option 550 Paper Feeder

Step	Check	Yes	No
	Possible causes: PWBA FEEDER 550 (PL20.1.34)		
1	Checking Option 550 Paper Feeder Is Option 550 Paper Feeder for correct JIGEN2 installed?	Go to FIP4.6, 4.7 PWBA FEEDER 550.	Replace Option 550 Paper Feeder for correct JIGEN2.

4.12 Level 2 FIP

FIP4.6 PWBA FEEDER 550

It is stated here as Option 550 Paper Feeder is set as Tray 3. When it is set as Tray 4, refer to the statement in FIP2.21 PWBA FEEDER 550 for the circuit usage condition.

Step	Check	Yes	No
	Possible causes: HARNESS ASSY FDR1 (PL12.1.21) PWBA FEEDER 550 (PL20.1.34) HARNESS ASSY FDR2 (PL20.1.5) HVPS/MCU (PL12.1.19)		
1	Checking HARNESS ASSY FDR2 for continuity Remove HARNESS ASSY FDR2. Is there continuity between J2083 and J83?	Go to step 2.	Replace HAR- NESS ASSY FDR2.
2	Checking HARNESS ASSY FDR1 for continuity Remove HARNESS ASSY FDR1. Is there continuity through HARNESS ASSY FDR1?	Go to step 3.	Replace HAR- NESS ASSY FDR1.
3	Checking PWBA FEEDER 550 Replace PWBA FEEDER 550. (RRP20.8) Does the problem still occur, after replacement?	End of work	Replace HVPS/ MCU. (RRP12.10)

FIP4.7 PWBA FEEDER 550

It is stated here as Option 550 Paper Feeder is set as Tray 4. When it is set as Tray 3, refer to the statement in FIP2.20 PWBA FEEDER 550 for the circuit usage condition.

Step	Check	Yes	No
	Possible causes: PWBA FEEDER 550 (PL20.1.34) HARNESS ASSY FDR5 (PL20.1.26) HARNESS ASSY FDR2 (PL20.1.5) HVPS/MCU (PL12.1.19)		
1	Checking HARNESS ASSY FDR2 for continuity Remove HARNESS ASSY FDR2. Is there continuity between J2083 and J83?	Go to step 2.	Replace HAR- NESS ASSY FDR2.
2	Checking HARNESS ASSY FDR5 for continuity Remove HARNESS ASSY FDR5. Is there continuity between J84 and J8483?	Go to step 3.	Replace HAR- NESS ASSY FDR5.
3	Checking PWBA FEEDER 550 Replace PWBA FEEDER 550. (RRP20.8) Does the problem still occur, after replacement?	End of work	Replace HVPS/ MCU. (RRP12.10)

FIP4.8 SENSOR NO PAPER

Step	Check	Yes	No
	Possible causes: SENSOR NO PAPER (PL20.2.33) ACTUATOR NO PAPER (PL20.2.6) HARNESS ASSY CLSNR1 (PL20.2.31) HARNESS ASSY CLSNR2 (PL20.1.36) 550 PAPER CASSETTE (PL20.3.50) Option 550 Paper Feeder PWBA FEEDER 550 (PL20.1.34) HVPS/MCU (PL12.1.19)		
1	Checking ACTUATOR NO PAPER Remove Option 550 Paper Feeder. (RRP20.1) Install 550 PAPER CASSETTE. Move ACTUATOR NO PAPER with a finger. Does ACTUATOR NO PAPER operate smoothly? Does the flag go into the detecting area of the sensor when the paper is set, and out of the detecting area when there is no paper?	With tool Go to step 2. Without tool Go to step 3.	Replace ACTUATOR NO PAPER.
2	Checking SENSOR NO PAPER (1) Install Option 550 Paper Feeder. (RRP20.1) Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Remove 550 PAPER CASSETTE. Put the hand in the cassette insertion space, move ACTUATOR NO PAPER. Does the number increase one by one, as ACTUATOR NO PAPER operates? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to step 3.
3	Checking SENSOR NO PAPER (2) Install Option 550 Paper Feeder. (RRP20.1) Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Remove 550 PAPER CASSETTE. Put the hand in the cassette insertion space, move ACTUATOR NO PAPER. Is the voltage across P/J85-7(+) and P/J85-6(-), 0 VDC when ACTUATOR NO PAPER is held up, and 3.3 VDC when released?	Go to FIP4.6, 4.7 PWBA FEEDER 550.	Go to step 4.
4	Checking HARNESS ASSY CLSNR1 for continuity Remove HARNESS ASSY LSNR1. Is there continuity between J855-5 and J852-3? J855-6 and J852-2? J855-7 and J852-1?	Go to step 5.	Replace HARNESS ASSY CLSNR1.
5	Checking HARNESS ASSY CLSNR2 for continuity Disconnect connector P/J85 from PWBA FEEDER 550. Is there continuity between J85-5 and J855-3? J85-6 and J855-2? J85-7 and J855-1?	Go to step 6.	Replace HARNESS ASSY CLSNR2.

Step	Check	Yes	No
6	Checking HVPS/MCU for continuity Disconnect P/J11 and P/J20 from HVPS/MCU. Is there continuity between P11-16 and P20-5?	Go to step 7.	Replace HVPS/ MCU. (RRP12.10)
7	Checking after replacing SENSOR NO PAPER (3) Replace SENSOR NO PAPER. (RRP20.16) Does the problem still occur, after replacement?	Replace HVPS/ MCU. (RRP12.10)	End of work

FIP4.9 SENSOR LOW PAPER

Step	Check	Yes	No
	Possible causes: SENSOR LOW PAPER (PL20.1.30) ACTUATOR LOW PAPER (PL20.1.31) HARNESS LOW PAPER (PL20.1.33) HARNESS ASSY FDR2 (PL20.1.5) Option 550 Paper Feeder 550 PAPER CASSETTE PWBA FEEDER 550 (PL20.1.34) PLATE ASSY BTM (PL20.3.10) HVPS/MCU (PL12.1.19)		
1	Checking ACTUATOR LOW PAPER Remove Option 550 Paper Feeder. (RRP20.1) Install 550 PAPER CASSETTE. Move PLATE ASSY BTM up and down. Does ACTUATOR LOW PAPER operate smoothly? Does the flag go into the detecting area of the sensor when PLATE ASSY BTM is up state (ACTUATOR LOW PAPER is pushed up), and out of the detecting area when PLATE ASSY BTM is pressed down?	With tool Go to step 2. Without tool Go to step 3.	Replace ACTUATOR LOW PAPER.
2	Checking SENSOR LOW PAPER (1) Install Option 550 Paper Feeder. (RRP20.1) Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Remove 550 PAPER CASSETTE. Put the hand in the cassette insertion space, move ACTUATOR LOW PAPER. Does the number increase one by one, as ACTUATOR LOW PAPER operate? Check using Chapter 2 Diagnostic [Sensor/Switch Check].	Replace HVPS/MCU. (RRP12.10)	Go to step 3.
3	Checking SENSOR LOW PAPER (2) Install Option 550 Paper Feeder. (RRP20.1) Remove EP CARTRIDGE. Close COVER OPEN (PL1.1.2). Remove 550 PAPER CASSETTE. Put the hand in the cassette insertion space, move ACTUATOR LOW PAPER. Is the voltage across P/J81-3(+) and P/J81-2(-), 3.3 VDC when ACTUATOR LOW PAPER is held up, and 0 VDC when released?	Go to FIP4.6, 4.7 PWBA FEEDER 550.	Go to step 4.
4	Checking HARNESS LOW PAPER for continuity Install Option 550 Paper Feeder. (RRP7.1) Disconnect the connector of SENSOR LOW PAPER. Disconnect P/J81 from PWBA FEEDER 550. Is there continuity between J81 and J810?	Go to step 5.	Replace HARNESS LOW PAPER.
5	Checking HVPS/MCU for continuity Disconnect P/J11 and P/J20 from HVPS/MCU. Is there continuity between P11-16 and P20-5?	Go to step 6.	Replace HVPS/MCU. (RRP12.10)
6	Checking SENSOR LOW PAPER (3) Replace SENSOR LOW PAPER. (RRP20. 7) Does the problem still occur, after replacement?	Replace HVPS/MCU. (RRP12.10)	End of work

FIP4.10 OPT ASSY SIZE

Step	Check	Yes	No
	Possible causes: OPT ASSY SIZE (PL20.1.18) HARNESS ASSY SIZE FDR1 (PL20.1.19) HARNESS ASSY SIZE FDR2 (PL20.1.35) Option 550 Paper Feeder 550 PAPER CASSETTE PWBA FEEDER 550 (PL20.1.34) HVPS/MCU (PL12.1.19)		
1	Checking HARNESS ASSY SIZE FDR1 for continuity Remove HARNESS ASSY SIZE FDR1. Is each cable between J801 and J802 continuous?	Go to step 2.	Replace HAR- NESS ASSY SIZE FDR1.
2	Checking HARNESS ASSY SIZE FDR2 for continuity Disconnect P/J80 from PWBA FEEDER 550. Disconnect P/J801. Is each cable between J80 and J801 continuous?	Go to step 3.	Replace HAR- NESS ASSY SIZE FDR2.
3	Checking OPT ASSY SIZE Is the harness of OPT ASSY SIZE continuous?	Go to FIP4.7,8 PWBA FEEDER 550.	Replace OPT ASSY SIZE. (RRP20.4)

FIP4.11 CLUTCH ASSY PH

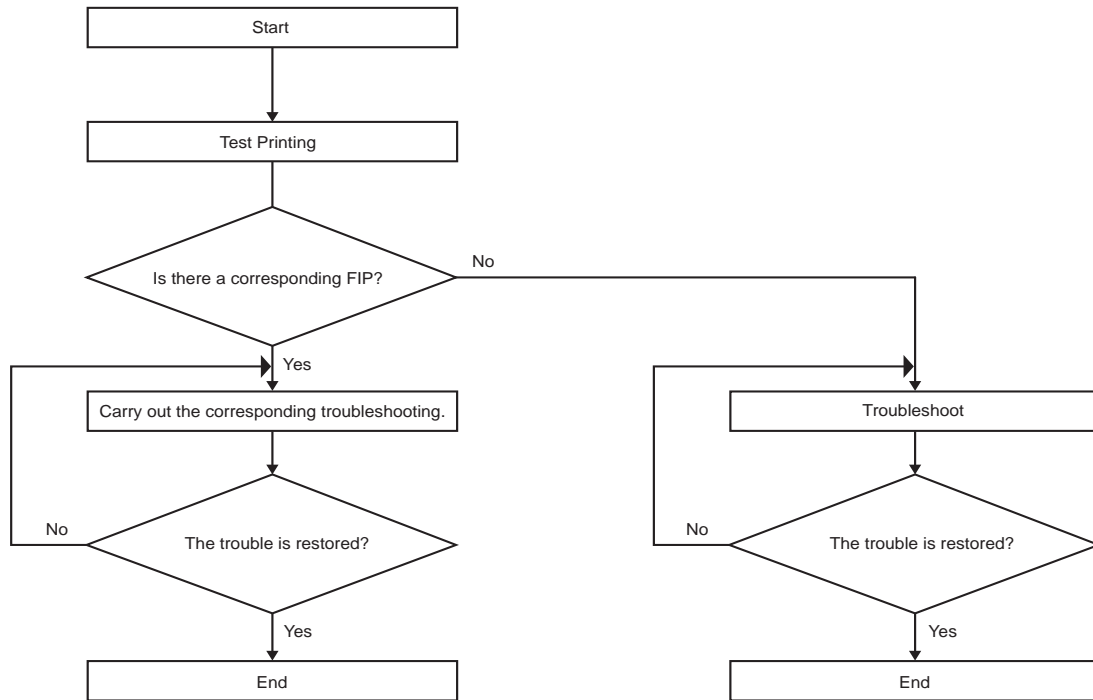
Step	Check	Yes	No
	Possible causes: CLUTCH ASSY PH (PL20.2.21) Option 550 Paper Feeder 550 PAPER CASSETTE (PL20.3.50) PWBA FEEDER 550 (PL20.1.34) HARNESS ASSY CLSNR1 (PL20.2.31) HARNESS ASSY CLSNR2 (PL20.1.36) HARNESS ASSY FDR2 (PL20.1.5) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) HARNESS ASSY FDR1 (PL12.1.21)		
1	Checking HARNESS ASSY CLSNR1 for continuity Disconnect P/J855. Disconnect P/J853. Is each cable between J855 and J853 continuous?	Go to step 2.	Replace HARNESS ASSY CLSNR1.
2	Checking HARNESS ASSY CLSNR2 for continuity Disconnect P/J85 from PWBA FEEDER 550. Disconnect P/J855. Is each cable between J85 and J855 continuous?	Go to step 3.	Replace HARNESS ASSY CLSNR2.
3	Checking the resistance of CLUTCH ASSY PH Is the resistance of the wire wound resistor between P/J853-1 and P/J853-2 of CLUTCH ASSY PH, 172 ohm +/-10% (at 20 °C)?	Go to step 4.	Replace CLUTCH ASSY PH. (RRP20.14)
4	Checking PWBA FEEDER 550 for continuity Disconnect P/J83 from PWBA FEEDER 550. Is there continuity between P83-1 and P85-1?	Go to step 5.	Replace PWBA FEEDER 550. (RRP20.8)
5	Checking HARNESS ASSY FDR2 for continuity Remove HARNESS ASSY FDR2. Is there continuity between J2083 and J83?	Go to step 6.	Replace HARNESS ASSY FDR2.
6	Checking HARNESS ASSY FDR1 for continuity Remove HARNESS ASSY FDR1. Is there continuity between J20 and J2083?	Go to step 7.	Replace HARNESS ASSY FDR1.
7	Checking the power to CLUTCH ASSY PH Remove EP CARTRIDGE. Is the voltage across P20-10(+) and P20-9(-) on HVPS/MCU, 24 VDC?	Replace CLUTCH ASSY PH. (RRP20.14)	Go to step 8.
8	Checking HVPS/MCU for continuity Disconnect P/J10 from HVPS/MCU. Is there continuity between P10-1 and P20-10?	Go to FIP1.24 LVPS.	Replace HVPS/MCU. (RRP12.10)

FIP4.12 CLUTCH PR-REGI

Step	Check	Yes	No
	Possible causes: CLUTCH PR-REGI (PL20.2.22) Option 550 Paper Feeder 550 PAPER CASSETTE (PL20.3.50) PWBA FEEDER 550 (PL20.1.34) HARNESS ASSY CLSNR1 (PL20.2.31) HARNESS ASSY CLSNR2 (PL20.1.36) HARNESS ASSY FDR2 (PL20.1.5) HVPS/MCU (PL12.1.19) LVPS (PL12.1.5) HARNESS ASSY FDR1 (PL12.1.21)		
1	Checking HARNESS ASSY CLSNR1 for continuity Disconnect P/J855. Disconnect P/J854. Is each cable between J855 and J854 continuous?	Go to step 2.	Replace HARNESS ASSY CLSNR1.
2	Checking HARNESS ASSY CLSNR2 for continuity Disconnect P/J85 from PWBA FEEDER 550. Disconnect P/J855. Is each cable between J85 and J855 continuous?	Go to step 3.	Replace HARNESS ASSY CLSNR2.
3	Checking the resistance of CLUTCH PR-REGI Is the resistance of the wire wound resistor between P/J854-1 and P/J854-2 of CLUTCH PR-REGI, 172 ohm $\pm 10\%$ (at 20 °C)?	Go to step 4.	Replace CLUTCH PR-REGI. (RRP20.15)
4	Checking PWBA FEEDER 550 for continuity Disconnect P/J83 from PWBA FEEDER 550. Is there continuity between P83-3 and P85-3?	Go to step 5.	Replace PWBA FEEDER 550. (RRP20.8)
5	Checking HARNESS ASSY FDR2 for continuity Remove HARNESS ASSY FDR2. Is there continuity between J2083 and J83?	Go to step 6.	Replace HARNESS ASSY FDR2.
6	Checking HARNESS ASSY FDR1 for continuity Remove HARNESS ASSY FDR1. Is there continuity between J20 and J2083?	Go to step 7.	Replace HARNESS ASSY FDR1.
7	Checking the power to CLUTCH PR-REGI Remove EP CARTRIDGE. Is the voltage across P20-10(+) and P20-9(-) on HVPS/MCU, 24 VDC?	Replace CLUTCH PR-REGI. (RRP20.15)	Go to step 8.
8	Checking HVPS/MCU for continuity Disconnect P/J10 from HVPS/MCU. Is there continuity between P10-1 and P20-10?	Go to FIP1.24 LVPS.	Replace HVPS/MCU. (RRP12.10)

5. Image Quality Defects

5.1 Entry Chart for Image Quality Troubleshooting



JG54A5AA

NOTE

It is assumed that the Printer Controller is functioning normally. By running a test print with the engine only, if the trouble is on the Printer Controller side or the engine side, diagnosis is simple, except those defects that are not able to be diagnosed by test print.

- Test print result with the engine only is normal. ---> Malfunction on Printer Controller side

- Test print result with the engine only is also abnormal. ---> Malfunction on the engine side

When it is the case of [Malfunction on Printer Controller side], replace with normal Printer Controller and normal Interface Cable, and check.

When the trouble still occurs after replacement, check the host side, and then operate Troubleshooting efficiently, using the following image quality FIP according to each phenomenon.

When an image quality problem occurs, run a test print to clearly define the defect. Next, troubleshoot using the image quality FIP table accordingly.

If the problem cannot be resolved using the image quality FIP, check again with the image quality FIP. Next, replace [ESS and possible causes] in order and check, and troubleshoot, using [Chapter 2 Diagnostic].

Image quality FIP states regarding the typical image quality trouble, as follows.

- FIP-1.P1 Faint print (Low contrast)
- FIP-1.P2 Blank print (No print)
- FIP-1.P3 Solid black
- FIP-1.P4 Vertical blank lines (White stripes in paper transport direction)
- FIP-1.P5 Horizontal band cross out
- FIP-1.P6 Vertical stripes
- FIP-1.P7 Horizontal stripes
- FIP-1.P8 Partial lack
- FIP-1.P9 Spots
- FIP-1.P10 Afterimage
- FIP-1.P11 Background (Fog)
- FIP-1.P12 Skew
- FIP-1.P13 Paper damage

NOTE

When horizontal lines and/or spot occur periodically, it is possibly caused by the trouble of a particular roll. In this case, measure the trouble interval on the test print, and check the relation to the roll in the table below. The interval does not necessarily match circumference of the roll. The trouble may be solved easily by the check.

Roll	Parts name	PL No.	Roll diameter (mm)	Interval (mm)
Drum	EP CARTRIDGE	-	30.5	94.3
BTR	BTR ASSY	PL8.1	16.2	50.7
Heat Roll	FUSER ASSY	PL8.1	24.9	78.3
Pressure Roll	FUSER ASSY	PL8.1	30	94.2

5.2 Image Quality FIP

FIP- 1.P1 Faint Print



SCO001F

Print defect

The density of the image is entirely too faint.

ESS and possible causes

- EP CARTRIDGE
- GUIDE ASSY CRU R (PL8.1.25)
- BTR ASSY (PL8.1.21)
- 150 FEEDER ASSY (PL5.1.1)
- PWBA ESS (PL12.1.13)
- ROS ASSY (PL8.1.1)
- FUSER ASSY (PL8.1.20)
- LVPS (PL12.1.5)
- HVPS/MCU (PL12.1.19)
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

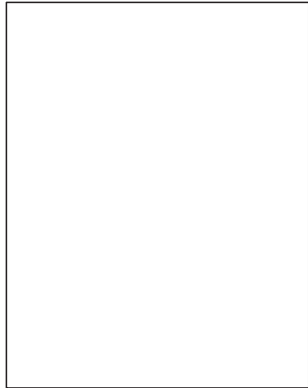
Step	Check	Yes	No
1	Checking the paper condition Have new, dry and recommended paper on, and operate Test Print. Is the density of the image normal?	End of work	Go to step 2.
2	Checking the laser beam course Make sure there is no obstacle between ROS ASSY and Drum. Check if any stains on ROS ASSY window. Are there any obstacles on the laser beam course? Is ROS ASSY window clean?	Go to step 3.	Remove obstacles and/or clean ROS ASSY window.
3	Checking EP CARTRIDGE Install a new EP CARTRIDGE. Re-print the problem image. Is the image density normal?	End of work	Go to step 4.
4	Checking BTR ASSY Remove BTR ASSY. (RRP8.10) Check if any stains and/or wear on BTR ASSY. Are there any stains and/or wear on BTR?	Go to step 5.	Replace BTR ASSY. (RRP8.10)
5	Checking the drum ground Remove GUIDE ASSY CRU R. (RRP8.13) Check the Plate Earth, located on the back of GUIDE ASSY CRU R. Is the Plate Earth stained and/or deformed?	Go to step 6.	Reform or clean the Plate Earth, or replace GUIDE ASSY CRU R. (RRP8.13)
6	Checking HVPS/MCU Replace HVPS/MCU. (RRP12.10) Carry out a test printing Is the problem cleared?	End of work	Go to step 7.

Step	Check	Yes	No
7	<p>Checking the image development process</p> <p>Operate Test Print, and turn off the power of the printer while printing.</p> <p>Remove the EP CARTRIDGE with care, and check the toner image formed on the drum, right before the transcribe part (BTR).</p> <p>Is the image on the drum completely formed?</p> <p>Is the area clear and black, and easily read?</p>	Go to step 8.	Go to FIP1.41 HVPS/MCU.
8	<p>Checking the image transcribe process</p> <p>Check the toner image formed on the drum, right after the transcribe part (BTR).</p> <p>Is the toner image on the drum completely transcribed on the paper?</p>	Go to step [ESS and possible causes].	Go to FIP1.41 HVPS/MCU.

FIP- 1.P2 Blank print (No print)

Print defect

The entire paper is printed pure white.

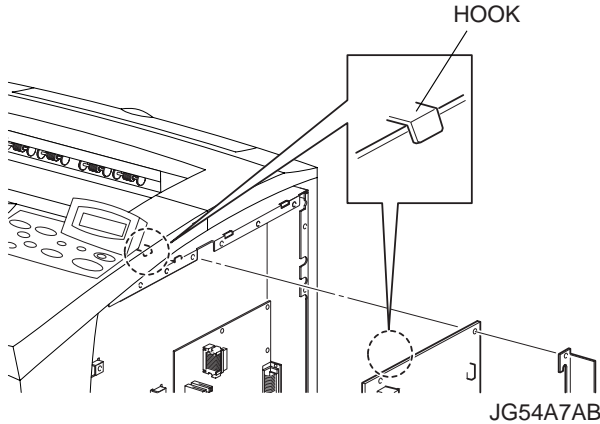


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ESS and possible causes

- EP CARTRIDGE
- GUIDE ASSY CRU R (PL8.1.25)
- BTR ASSY (PL8.1.21)
- 150 FEEDER ASSY (PL5.1.1)
- ROS ASSY (PL8.1.1)
- PWBA ESS (PL12.1.13)
- FUSER ASSY (PL8.1.20)
- LVPS (PL12.1.5)
- HVPS/MCU (PL12.1.19)
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	<p>Confirm whether HVPS/MCU is assembled under the hook of FRAME.</p> 	Go to step 2.	Work over the installation of HVPS/MCU again. (RRP12.10)
2	<p>Checking the laser beam course Make sure there is no obstacle between ROS ASSY and Drum. Are there any obstacles on the laser beam course?</p>	Go to step 3.	Remove obstacles.
3	<p>Checking ROS ASSY Check if any obstacles entirely cover the ROS ASSY window. Check if the connectors of the ROS ASSY are disconnected.</p>	Go to step 4.	Remove obstacles of ROS ASSY window and/or connect the connectors of ROS ASSY.
4	<p>Checking EP CARTRIDGE Install a new EP CARTRIDGE. Re-print the problem image. Is the image density normal?</p>	End of work	Go to step 5.

Step	Check	Yes	No
5	Checking BTR ASSY Remove BTR ASSY. (RRP8.10) Check if any stains and/or wear on BTR ASSY. Are there any stains and/or wear on BTR?	Go to step 6.	Replace BTR ASSY. (RRP8.10)
6	Checking the image development process Operate Test Print, and turn off the power of the printer while printing. Remove the EP CARTRIDGE with care, and check the toner image formed on the drum, right before the transcribe part (BTR). Is the image on the drum completely formed? Is the area clear and black, and easily read?	Go to step 7.	Go to FIP1.41 HVPS/MCU.
7	Checking the image transcribe process Check the toner image formed on the drum, right after the transcribe part (BTR). Is the toner image on the drum completely transcribed on the paper?	Go to step [ESS and possible causes].	Go to FIP1.41 HVPS/MCU.

FIP- 1.P3 Solid Black



SCO003F

Print defect

The entire paper is printed jet-black.

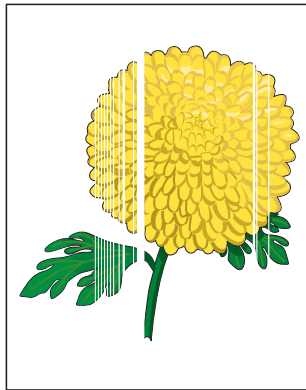
ESS and possible causes

- EP CARTRIDGE
- HVPS/MCU (PL12.1.19)
- LVPS (PL12.1.5)
- 150 FEEDER ASSY (PL5.1.1)
- ROS ASSY (PL8.1.1)
- PWBA ESS (PL12.1.13)
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	Checking EP CARTRIDGE Install a new EP CARTRIDGE. Carry out a test printing. Is the print normal?	End of work	Go to step 2.
2	Checking HVPS/MCU Cover entire ROS ASSY window. Carry out a test printing. Is the print black?	Go to FIP1.41 HVPS/MCU.	Go to step 3.
3	Checking ROS ASSY Cover a half of ROS ASSY window. Carry out a test printing. Is the print half white and half black? Is the print black?	Go to FIP1.26 ROS ASSY.	Replace HVPS/ MCU. (RRP12.10)

FIP- 1.P4 Vertical blank lines (White stripes in paper transport direction)



SCO004F

Print defect

There are some extremely faint or completely non-printed parts. Those non-printed parts cover a wide area vertically, along the paper feeding direction.

ESS and possible causes

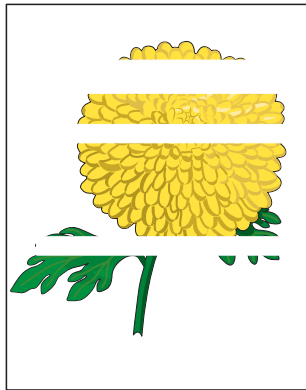
- EP CARTRIDGE
- BTR ASSY (PL8.1.21)
- 150 FEEDER ASSY (PL5.1.1)
- ROS ASSY (PL8.1.1)
- PWBA ESS (PL12.1.13)
- FUSER ASSY (PL8.1.20)
- Heat Roll
- Pressure Roll
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on

Step	Check	Yes	No
1	Checking the paper condition Have new, dry and recommended paper on. Re-print the problem image. Does the problem still occur?	Go to step 2.	End of work
2	Checking the paper transfer course Check if there are any stains or obstacles on the paper transfer course between the paper feeding entrance and the exit. Are there any obstacles on the paper transfer course?	Go to step 3.	Remove the obstacles or stains from the paper transfer course.
3	Checking the laser beam course Make sure there is no obstacle between ROS ASSY and Drum. Are there any obstacles on the laser beam course? Check if any stains on ROS ASSY window.	Go to step 4.	Remove all the obstacles from the laser beam course and/or clean ROS ASSY window.
4	Checking EP CARTRIDGE Install a new EP CARTRIDGE. Re-print the problem image. Does the problem still occur?	Go to step 5.	End of work
5	Checking BTR ASSY (PL8.1.21) Remove BTR ASSY. (RRP8.10) Check if any stains and/or wear on BTR ASSY. Are there any stains and/or wear on BTR?	Go to step 6.	Replace BTR ASSY. (RRP8.10)

Step	Check	Yes	No
6	<p>Checking Heat Roll and Pressure Roll Remove FUSER ASSY. (RRP8.8) Warning; Start the operation after the FUSER ASSY have cooled down. Turn the Gear HR with a finger, and check the Heat Roll and Pressure Roll. Are the Heat Roll and Pressure Roll damaged or stained?</p>	Go to step [ESS and possible causes].	Replace FUSER ASSY. (RRP8.8)

FIP- 1.P5 Horizontal band cross out



SCO005F

Print defect

There are some extremely faint or completely non-printed parts. Those non-printed parts cover a wide area horizontally, perpendicular to the paper feeding direction.

ESS and possible causes

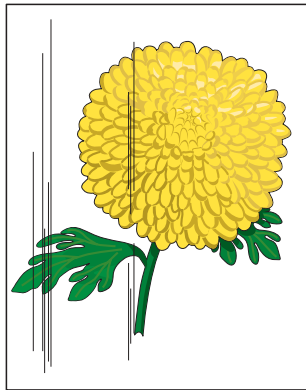
- EP CARTRIDGE
- HVPS/MCU (PL12.1.19)
- GUIDE ASSY CRU R (PL8.1.25)
- BTR ASSY (PL8.1.21)
- 150 FEEDER ASSY (PL5.1.1)
- ROS ASSY (PL8.1.1)
- PWBA ESS (PL12.1.13)
- FUSER ASSY (PL8.1.20)
- Heat Roll
- Pressure Roll
- MAIN MOTOR (PL11.1.2)
- GEAR ASSY HOUSING (PL11.1.3)
- CLUTCH REGI (PL5.1.23)
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	Checking the paper condition Have new, dry and recommended paper on. Re-print the problem image. Does the problem still occur?	Go to step 2.	End of work
2	Checking EP CARTRIDGE Install new EP CARTRIDGE. Has the horizontal band cross out gone?	End of work	Go to step3.
3	Checking BTR ASSY Remove BTR ASSY. (RRP8.10) Check if any stains and/or wear on BTR ASSY. Are there any stains and/or wear on BTR?	Go to step 4.	Replace BTR ASSY. (RRP8.10)
4	Checking ROS ASSY Are the connectors on ROS ASSY surely connected?	Go to step 5.	Reconnect the connectors.
5	Checking the image development process Operate Test Print, and turn off the power of the printer while printing. Remove the EP CARTRIDGE with care, and check the toner image formed on the drum, right before the transcribe part (BTR). Is the image on the drum completely formed? Is the area clear and black, and easily read? Has the horizontal band cross out gone?	Go to step 6.	Go to FIP1.41 HVPS/MCU.

Step	Check	Yes	No
6	<p>Checking the image transcribe process</p> <p>Check the toner image formed on the drum, right after the transcribe part (BTR).</p> <p>Is the toner image on the drum completely transcribed on the paper?</p>	Go to step 7.	Go to FIP1.41 HVPS/MCU.
7	<p>Checking Drive Assy and GEAR ASSY HOUSING</p> <p>Replace Drive Assy and GEAR ASSY HOUSING. (RRP11.3)</p> <p>Re-print the problem image.</p> <p>Does the problem still occur?</p>	Go to step 8.	End of work
8	<p>Checking Heat Roll and Pressure Roll</p> <p>Remove FUSER ASSY. (RRP8.8)</p> <p>Warning; Start the operation after the FUSER ASSY have cooled down.</p> <p>Turn the Gear HR with a finger, and check the Heat Roll and Pressure Roll.</p> <p>Are the Heat Roll and Pressure Roll damaged or stained?</p>	Go to step [ESS and possible causes].	Replace FUSER ASSY. (RRP8.8)

FIP- 1.P6 Vertical stripes



SCO006F

Print defect

There are vertical black stripes along the paper.

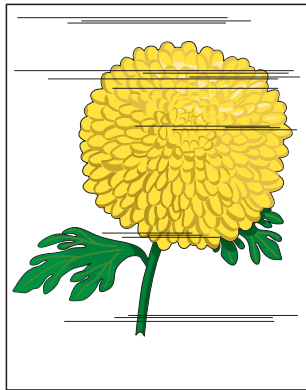
ESS and possible causes

- EP CARTRIDGE
- HVPS/MCU (PL12.1.19)
- GUIDE ASSY CRU R (PL8.1.25)
- BTR ASSY (PL8.1.21)
- 150 FEEDER ASSY (PL5.1.1)
- ROS ASSY (PL8.1.1)
- PWBA ESS (PL12.1.13)
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	Check the paper transfer course. Check if there are any stains or obstacles on the paper transfer course between the paper feeding entrance and the exit. Are there any obstacles on the paper transfer course?	Go to step 2.	Remove the obstacles or stains from the paper transfer course.
2	Checking the laser beam course Make sure there is no obstacle between ROS ASSY and Drum. Are there any obstacles on the laser beam course? Check if any stains on ROS ASSY window.	Go to step 3.	Remove all the obstacles from the laser beam course and/or clean ROS ASSY window.
3	Checking EP CARTRIDGE Install a new EP CARTRIDGE. Carry out a test printing. Have the vertical black stripes gone?	End of work	Go to step 4.
4	Checking BTR ASSY Remove BTR ASSY. (RRP8.10) Check if any stains and/or wear on BTR ASSY. Are there any stains and/or wear on BTR?	Go to step 5.	Replace BTR ASSY. (RRP8.10)
5	Checking ROS ASSY Are the connectors on ROS ASSY surely connected?	Go to step 6.	Reconnect the connectors.
6	Checking Heat Roll and Pressure Roll Remove FUSER ASSY. (RRP8.8) Warning; Start the operation after the FUSER ASSY have cooled down. Turn the Gear HR with a finger, and check the Heat Roll and Pressure Roll. Are the Heat Roll and Pressure Roll damaged or stained?	Go to FIP1.42 Electrical Noise.	Replace FUSER ASSY. (RRP8.8)

FIP- 1.P7 Horizontal stripes



SCO007F

Print defect

There are horizontal black stripes along the paper.

ESS and possible causes

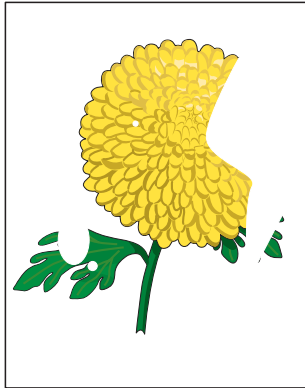
- EP CARTRIDGE
- HVPS/MCU (PL12.1.19)
- GUIDE ASSY CRU R (PL8.1.25)
- BTR ASSY (PL8.1.21)
- 150 FEEDER ASSY (PL5.1.1)
- MAIN MOTOR (PL11.1.2)
- GEAR ASSY HOUSING (PL11.1.3)
- ROS ASSY (PL8.1.1)
- PWBA ESS (PL12.1.13)
- LVPS (PL12.1.5)
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	Checking EP CARTRIDGE Install a new EP CARTRIDGE. Re-print the problem image. Have the horizontal black stripes gone?	End of work.	Go to step 2
2	Checking ROS ASSY Are the connectors on ROS ASSY surely connected? Is the ROS ASSY surely secured to the frame?	Go to step 3.	Reconnect the connectors and/or reinstall the ROS ASSY.
3	Checking Drive Assy and GEAR ASSY HOUSING Replace Drive Assy and GEAR ASSY HOUSING. (RRP11.3) Re-print the problem image. Does the problem still occur?	Go to step 4.	End of work
4	Checking GUIDE ASSY CRU R for continuity Remove EP CARTRIDGE. Check if there are any deformation or stains on the plate of GUIDE ASSY CRU R. Check the continuity of the plate of GUIDE ASSY CRU R. Are there any deformation or stains on the plate of GUIDE ASSY CRU R, and does it continuous?	Go to step 5.	Replace GUIDE ASSY CRU R. (RRP8.13)
5	Checking connection of GUIDE ASSY CRU R Check the contact of the plate of GUIDE ASSY CRU R with the terminal on HVPS/MCU. Does the plate of GUIDE ASSY CRU R correctly contact with the terminal on HVPS/MCU?	Go to step 6.	Replace GUIDE ASSY CRU R. (RRP8.13)

Step	Check	Yes	No
6	Checking Drum ground Check the Plate Earth of GUIDE ASSY CRU R. Are there any stains or deformation on the Plate Earth?	Go to step 7.	Restore or clean the Plate Earth, or replace GUIDE ASSY CRU R. (RRP8.13)
7	Checking BTR ASSY Remove BTR ASSY. (RRP8.10) Check if any stains and/or wear on BTR ASSY. Are there any stains and/or wear on BTR?	Go to step 8.	Replace BTR ASSY. (RRP8.10)
8	Checking the image development process Operate Test Print, and turn off the power of the printer while printing. Remove the EP CARTRIDGE with care, and check the toner image formed on the drum, right before the transcribe part (BTR). Is the image on the drum completely formed? Is the area clear and black, and easily read?	Go to step 9.	Go to FIP1.41 HVPS/MCU.
9	Checking the image transcribe process Check the toner image formed on the drum, right after the transcribe part (BTR). Is the toner image on the drum completely transcribed on the paper?	Go to step 10.	Replace BTR ASSY. (RRP8.10)
10	Checking Heat Roll and Pressure Roll Remove FUSER ASSY. (RRP8.8) Warning; Start the operation after the FUSER ASSY have cooled down. Turn the Gear HR with a finger, and check the Heat Roll and Pressure Roll. Are the Heat Roll and Pressure Roll damaged or stained?	Go to step [ESS and possible causes].	Replace FUSER ASSY. (RRP8.8)

FIP- 1.P8 Partial Deletion



SCO008F

Print defect

There are some extremely faint or completely missing parts. Those missing parts are dotted in a limited area on the paper.

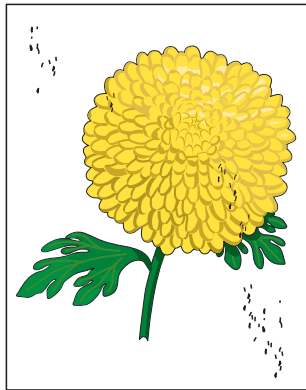
ESS and possible causes

- EP CARTRIDGE
- HVPS/MCU (PL12.1.19)
- BTR ASSY (PL8.1.21)
- 150 FEEDER ASSY (PL5.1.1)
- PWBA ESS (PL12.1.13)
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	Checking the paper condition Have new, dry and recommended paper on. Re-print the problem image. Does the problem still occur?	Go to step 2.	End of work
2	Checking EP CARTRIDGE Install a new EP CARTRIDGE. Re-print the problem image. Does the problem still occur?	Go to step 3.	End of work
3	Checking the image development process Operate Test Print, and turn off the power of the printer while printing. Remove the EP CARTRIDGE with care, and check the toner image formed on the drum, right before the transcribe part (BTR). Is the image on the drum completely formed? Is the area clear and black, and easily read?	Go to step 4.	Go to FIP1.41 HVPS/MCU.
4	Checking the image transcribe process Check the toner image formed on the drum, right after the transcribe part (BTR). Is the toner image on the drum completely transcribed on the paper?	Go to step 5.	Replace BTR ASSY. (RRP8.10)
5	Checking Heat Roll and Pressure Roll Remove FUSER ASSY. (RRP8.8) Warning; Start the operation after the FUSER ASSY have cooled down. Turn the Gear HR with a finger, and check the Heat Roll and Pressure Roll. Are the Heat Roll and Pressure Roll damaged or stained?	Go to step [ESS and possible causes].	Replace FUSER ASSY. (RRP8.8)

FIP- 1.P9 Spots



SCO009F

Print defect

There are toner spots all over the paper disorderedly.

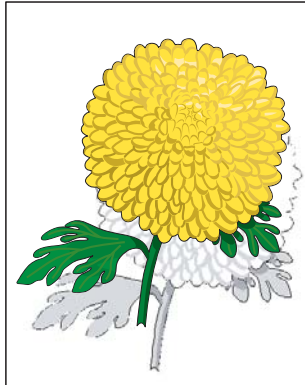
ESS and possible causes

- EP CARTRIDGE
- HVPS/MCU (PL12.1.19)
- BTR ASSY (PL8.1.21)
- 150 FEEDER ASSY (PL5.1.1)
- ROS ASSY (PL8.1.1)
- GUIDE ASSY CRU R (PL8.1.25)
- PWBA ESS (PL12.1.13)
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	Checking EP CARTRIDGE Install a new EP CARTRIDGE. Carry out a test printing. Have the spots gone?	End of work	Go to step 2.
2	Checking BTR ASSY Remove BTR ASSY. (RRP8.10) Check if any stains and/or wear on BTR ASSY. Are there any stains and/or wear on BTR?	Go to step 3.	Replace BTR ASSY. (RRP8.10)
3	Checking ROS ASSY Are the connectors on ROS ASSY surely connected?	Go to step 4.	Reconnect the connectors.
4	Checking the image development process Operate Test Print, and turn off the power of the printer while printing. Remove the EP CARTRIDGE with care, and check the toner image formed on the drum, right before the transcribe part (BTR). Is the image on the drum completely formed? Is the area clear and black, and easily read?	Go to step 5.	Go to FIP1.41 HVPS/MCU.
5	Checking Heat Roll and Pressure Roll Remove FUSER ASSY. (RRP8.8) Warning; Start the operation after the FUSER ASSY have cooled down. Turn the Gear HR with a finger, and check the Heat Roll and Pressure Roll. Are the Heat Roll and Pressure Roll damaged or stained?	Go to step [ESS and possible causes].	Replace FUSER ASSY. (RRP8.8)

FIP- 1.P10 Ghosting



SCO010F

Print defect

The ghost appears on the paper. The ghost may be the image of the previous page, or a part of the page currently printing.

ESS and possible causes

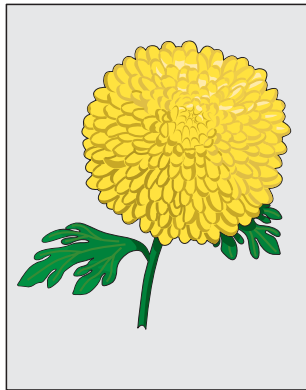
- EP CARTRIDGE
- HVPS/MCU (PL12.1.19)
- GUIDE ASSY CRU R (PL8.1.25)
- Drive Assy
- BTR ASSY (PL8.1.21)
- 150 FEEDER ASSY (PL5.1.1)
- MAIN MOTOR (PL11.1.2)
- GEAR ASSY HOUSING (PL11.1.3)
- PWBA ESS (PL12.1.13)
- FUSER ASSY (PL8.1.20)
- Heat Roll
- Pressure Roll
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	Checking repeat printing Check the afterimage. Is the client printing a copy of the same image in a large quantity?	Go to step 2.	Go to step 3.
2	Print 30 pages of the image of every kind. Does the afterimage still appear?	Go to step 3.	Don't make a copy of the same image in a large quantity.
3	Checking the paper condition Have new, dry and recommended paper on. Re-print the problem image. Does the problem still occur?	Go to step 4.	End of work
4	Checking EP CARTRIDGE Install a new EP CARTRIDGE. Re-print the problem image. Does the problem still occur?	Go to step 5.	End of work
5	Checking BTR ASSY Remove BTR ASSY. (RRP8.10) Check if any stains and/or wear on BTR ASSY. Are there any stains and/or wear on BTR?	Go to step 6.	Replace BTR ASSY. (RRP8.10)

Step	Check	Yes	No
6	<p>Checking Heat Roll and Pressure Roll Remove FUSER ASSY. (RRP8.8) Warning; Start the operation after the FUSER ASSY have cooled down. Turn the Gear HR with a finger, and check the Heat Roll and Pressure Roll. Are the Heat Roll and Pressure Roll damaged or stained?</p>	Go to step 7.	Replace FUSER ASSY. (RRP8.8)
7	<p>Checking ground of Heat Roll, Pressure Roll and Inlet Chute Check visually, if there are any stains or transformation on the two plates on the left side of FUSER ASSY. Check the continuity between the plate on the left side of FUSER ASSY and the following points: - Back plate and Both ends of Heat Roll, without coating (5-10 k-ohm) - Front plate and The plate on Inlet Chute left end (1-2 k-ohm) Are the grounding plates of Heat Roll, Pressure Roll and Inlet Chute sound and continuous?</p>	Go to step 8.	Replace FUSER ASSY. (RRP8.8)
8	<p>Checking ground of FUSER ASSY Remove EP CARTRIDGE. Check if there are any stains or deformation on GEAR ASSY HOUSING. Check the continuity between the printer frame and screw on the back of FUSER ASSY. Are there any deformation or stains on GEAR ASSY HOUSING? Is FUSER ASSY grounded?</p>	Go to step [ESS and possible causes].	Replace GEAR ASSY HOUSING. (RRP11.3)

FIP- 1.P11 Background (Fog)



SCO011F

Print defect

There is toner stain all over or a part of the page. The stain appears as very bright gray stain.

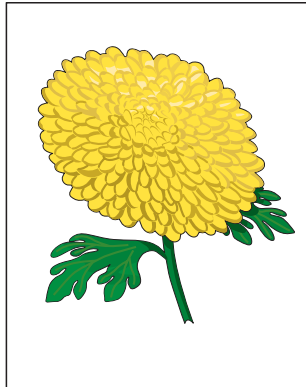
ESS and possible causes

- EP CARTRIDGE
- BTR ASSY (PL8.1.21)
- HVPS/MCU (PL12.1.19)
- GUIDE ASSY CRU R (PL8.1.25)
- ROS ASSY (PL8.1.1)
- PWBA ESS (PL12.1.13)
- 150 FEEDER ASSY (PL5.1.1)
- FUSER ASSY (PL8.1.20)
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	Checking EP CARTRIDGE Install a new EP CARTRIDGE. Carry out a test printing. Have the background gone?	End of work	Go to step 2.
2	Checking the image development process Operate Test Print, and turn off the power of the printer while printing. Remove the EP CARTRIDGE with care, and check the toner image formed on the drum, right before the transcribe part (BTR). Is the image on the drum completely formed? Is the area clear and black, and easily read?	Go to step 3.	Go to FIP1.41 HVPS/MCU
3	Checking ROS ASSY Are the connectors on ROS ASSY surely connected?	Go to step 4.	Reconnect the connectors.
4	Checking 150 FEEDER ASSY ground Remove EP CARTRIDGE. Check the continuity from the front open part between 150 FEEDER ASSY metal part and printer frame metal part. Is 150 FEEDER ASSY grounded?	Go to step 5.	Remove 150 FEEDER ASSY and install again for correct ground. (RRP5.1)
5	Checking FUSER ASSY ground Open COVER REAR (PL1.4). Check the continuity between printer frame and the screw on the back of FUSER ASSY. Is FUSER ASSY grounded?	Go to step [ESS and possible causes].	Remove FUSER ASSY and install again. (RRP8.8)

FIP- 1.P12 Skew



SCO012F

Print defect

The printed image is not paralleled with both sides of the paper.

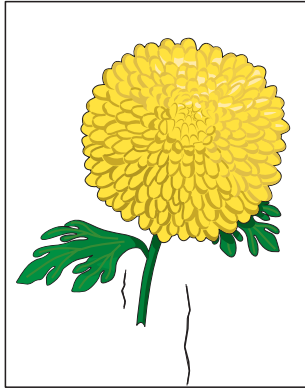
ESS and possible causes

- EP CARTRIDGE
- BTR ASSY (PL8.1.21)
- 150 FEEDER ASSY (PL5.1.1)
- FUSER ASSY (PL8.1.20)
- Paper Cassette
- PLATE ASSY BTM (PL2.1.10, PL4.1.10)
- 150 Paper Feeder
- Option 550 Paper Feeder
- PWBA ESS (PL12.1.13)
- 550 FEEDER ASSY (PL7.1.10)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	Checking the installation place Check if there is any irregularity on the installation place. Check if there is any missing Foot. Is the setup surface normal?	Go to step 2.	Arrange the installation place normally.
2	Checking the paper feeding Remove the Paper Cassette. Insert the paper to the Paper Cassette correctly. Install the Paper Cassette to the printer. Install PLATE ASSY BTM correctly. (not to incline right or left) (RRP2.5 and 4.5) Re-print the problem image. Does the problem still occur?	Go to step 3.	End of work
3	Check the paper transfer course. Check if there are any stains or obstacles on the paper transfer course between the paper feeding tray and the exit tray. Are there any obstacles on the paper transfer course?	Go to step 4.	Remove the obstacles or stains from the paper transfer course.
4	Checking the rolls on the paper transfer course Check all the rolls on the course, where the paper transfer between paper feeding entrance tray and exit tray, and check if there are any stains, wear or damages. Check if the pinch roll rotates freely, and the spring pressure is even. Are there any stains, wear or damages on the rolls in the paper transfer course?	Go to step 5.	Replace the damaged or worn-out rolls. (Refer to corresponding RRP's, for replacement.)
5	Checking EP CARTRIDGE Install a new EP CARTRIDGE. Re-print the problem image. Is the image still skew?	Go to step [ESS and possible causes].	End of work

FIP- 1.P13 Paper damage



SCO013F

Print defect

The paper comes out from the printer crumpled, folded or worn-out.

ESS and possible causes

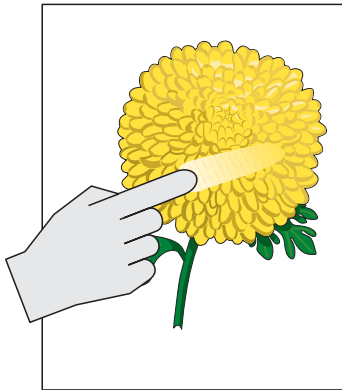
- FUSER ASSY (PL8.1.20)
- Heat Roll
- Pressure Roll
- PWBA ESS (PL12.1.13)
- 150 FEEDER ASSY (PL5.1.1)
- EP CARTRIDGE
- BTR ASSY (PL8.1.21)
- Paper Cassette
- PLATE ASSY BTM (PL2.1.10, PL4.1.10)
- 150 Paper Feeder
- 550 FEEDER ASSY (PL7.1.10)
- Option 550 Paper Feeder

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	Checking the paper feeding Observe the paper feeding condition. Is the paper fed crooked?	Go to FIP-1.P12 Skew.	Go to step 2.
2	Checking the paper condition Have new, dry and recommended paper on. Carry out a test printing. (Refer to Chapter 2 Diagnostic [TEST PATTERN MODE MENU]. Dose the problem still occur?	Go to step 3.	End of work
3	Check the paper transfer course. Check if there are any stains or obstacles on the paper transfer course between the paper feeding tray and the exit tray. Are there any obstacles on the paper transfer course?	Go to step 4.	Remove the obstacles or stains from the paper transfer course.
4	Checking the rolls on the paper transfer course Check all the rolls on the course, where the paper transfer between paper feeding entrance tray and exit tray, and check if there are any stains, wear or damages. Are there any stains, wear or damages on the rolls in the paper transfer course?	Go to step 5.	Replace the damaged or worn-out rolls.
5	Checking Heat Roll and Pressure Roll Remove FUSER ASSY. (RRP8.8) Warning; Start the operation after the FUSER ASSY have cooled down. Turn the Gear HR with a finger, and check the Heat Roll and Pressure Roll. Are the Heat Roll and Pressure Roll damaged or stained?	Go to step 6.	Replace FUSER ASSY. (RRP8.8)

Step	Check	Yes	No
6	Checking EP CARTRIDGE Install a new EP CARTRIDGE. Carry out a test printing. Is the paper still damaged?	Go to step [ESS and possible causes].	End of work

FIP- 1.P14 Unfused Image



SCO014F

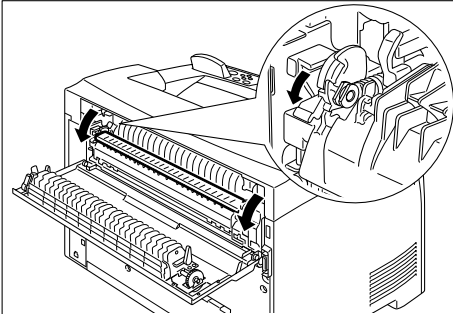
Print defect

The printed image is not fixed on the paper properly. The image easily comes off when rubbed.

ESS and possible causes

- FUSER ASSY (PL8.1.20)
- Heat Roll
- Pressure Roll
- PWBA ESS (PL12.1.13)
- LVPS (PL12.1.5)

Before commencing troubleshooting, check the paper transfer course. Make sure there is no foreign articles on the transfer course, such as staples, paper clips, scraps of paper and so on.

Step	Check	Yes	No
1	<p>Checking FUSER ASSY installation Check that the levers on both sides of the FUSER ASSY is pushed down, and then reprint the problem image. Does the problem still occur?</p>  <p>JG54A6AA</p>	Go to step 2.	End of work.
2	<p>Checking the paper condition Have new, dry and recommended paper on. Re-print the problem image. Does the problem still occur?</p>	Go to step 3.	End of work
3	<p>Checking Heat Roll and Pressure Roll Remove FUSER ASSY. (RRP8.8) Warning; Start the operation after the FUSER ASSY have cooled down. Turn the gear of the heater roller with a finger, and check the Heat Roll and Pressure Roll. Are the Heat Roll and Pressure Roll damaged or stained?</p>	Go to step 4.	Replace FUSER ASSY. (RRP8.8)

Step	Check	Yes	No
4	Checking FUSER ASSY Turn the gear of the Heater Roller with a finger. Check the contact condition of Heat Roll and Pressure Roll when rotating. Do Heat Roll and Pressure Roll contact evenly?	Go to step [ESS and possible causes].	Replace FUSER ASSY. (RRP8.8)

6. Judgment of Print Consistency

It is stated here how to judge simply the main print consistency printing with the standard paper (letter size). Keep the paper packaged in the operating environment for 12 hours, and then use the paper just after it has been unpacked.

Note

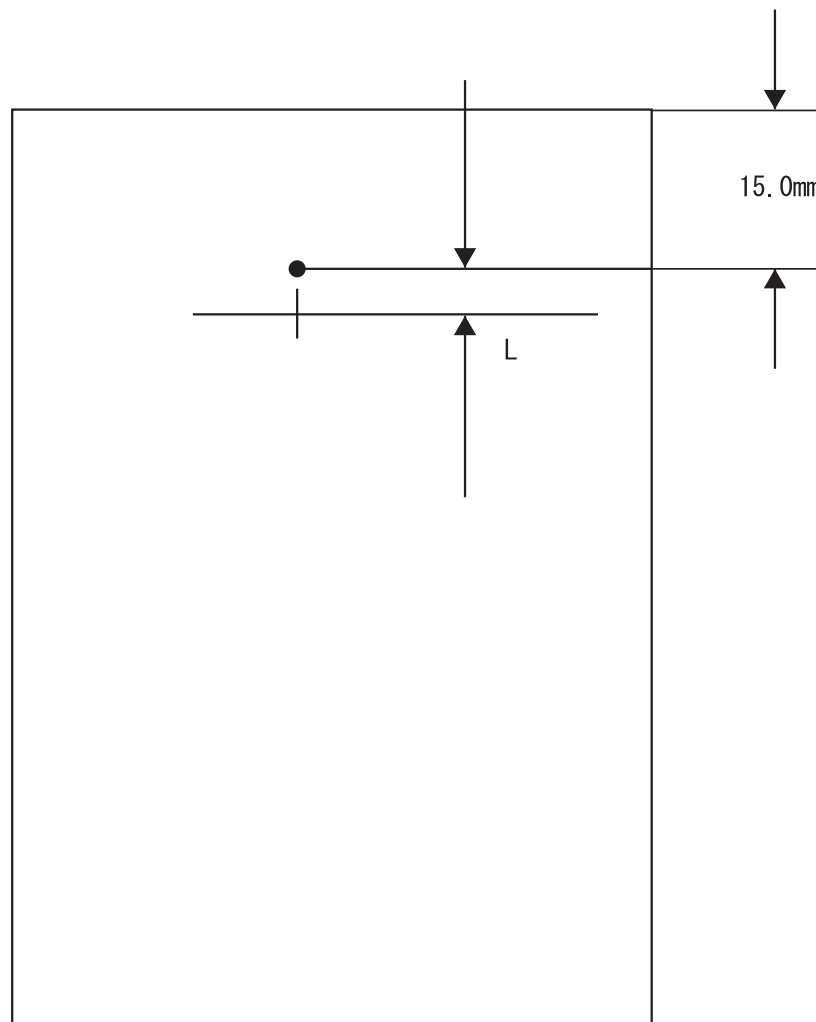
The image quality cannot be evaluated when the machine is faulty.

6.1 Leading edge registration

Measurement of the amount of print shift from the ideal position on the paper

Measure the amount of shift from the ideal point 15 mm away from the front end at center of right and left of the paper.

Reference: less than ± 2.0 mm

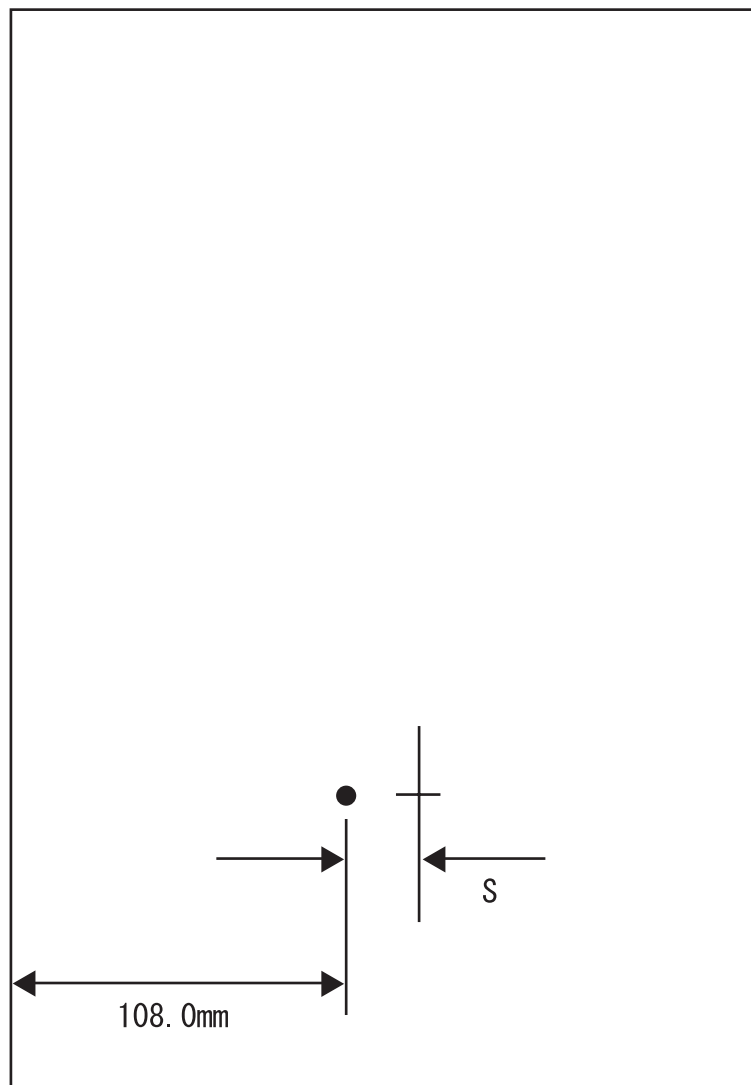


JG54A2AA

6.2 Side Edge Registration

Measure the amount of shift from the ideal point 108.0 mm away from the left end at center of front and-back of the paper.

Reference: less than ± 2.5 mm



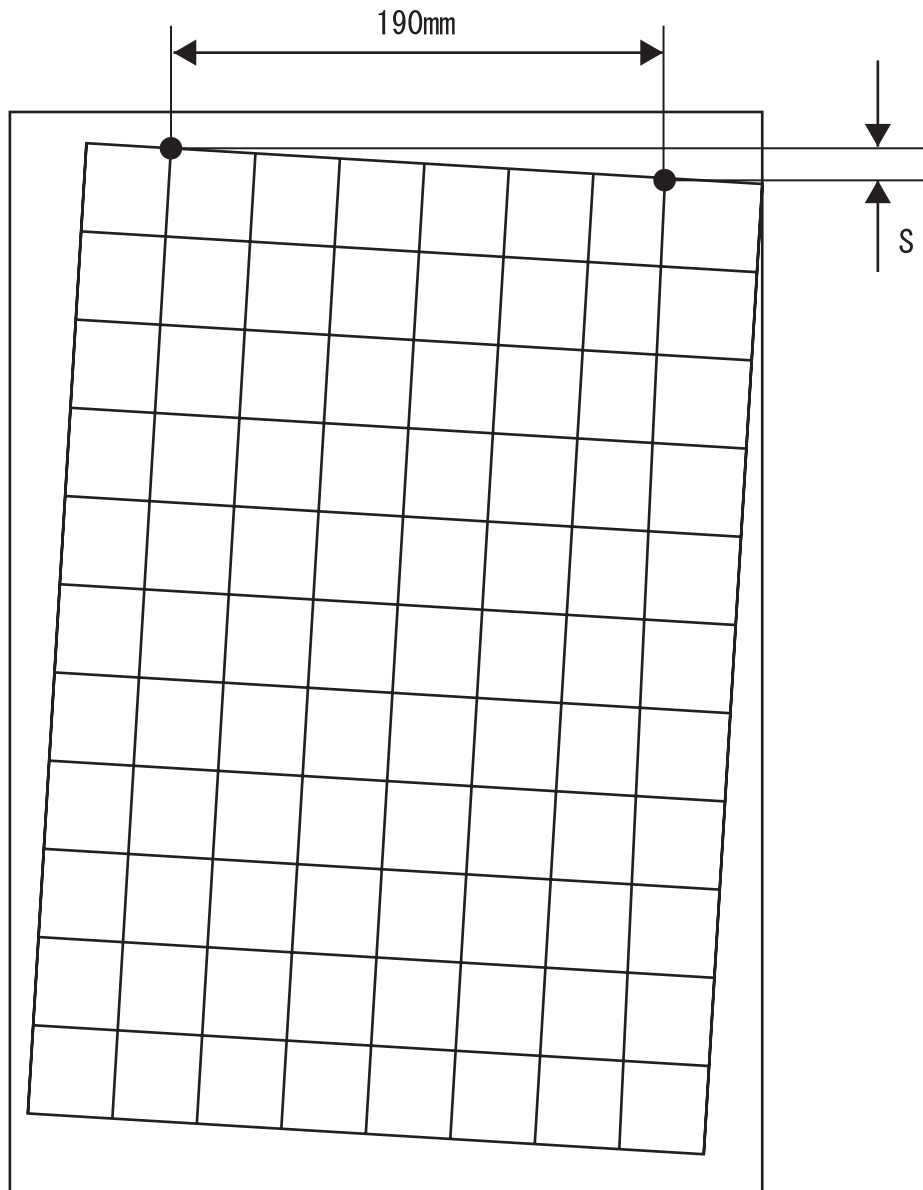
JG54A1AA

6.3 Skew

Measurement of the inclined paper feeding

Measure the vertical distance of two points 190 mm away each other on the top horizontal line.

Reference: less than ± 1.2 mm



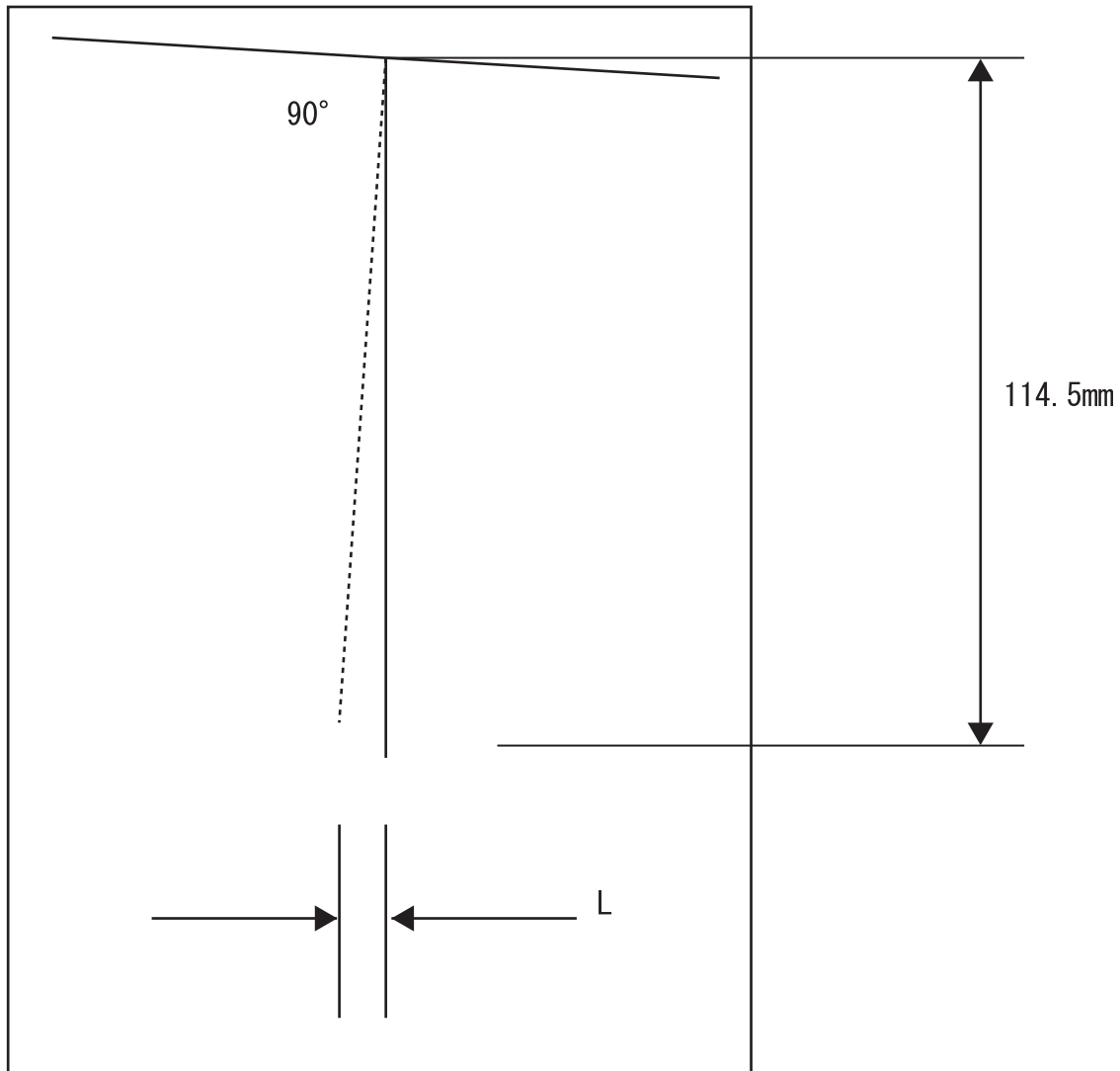
JG54A0AA

6.4 Perpendicularity

Measurement of the perpendicularity for suppressing inclines of ROS and OPC.

Check the perpendicular line to the horizontal line to measure the horizontal distance at the point 114.5 mm away vertically from center of top horizontal line.

Reference: less than ± 0.8 mm



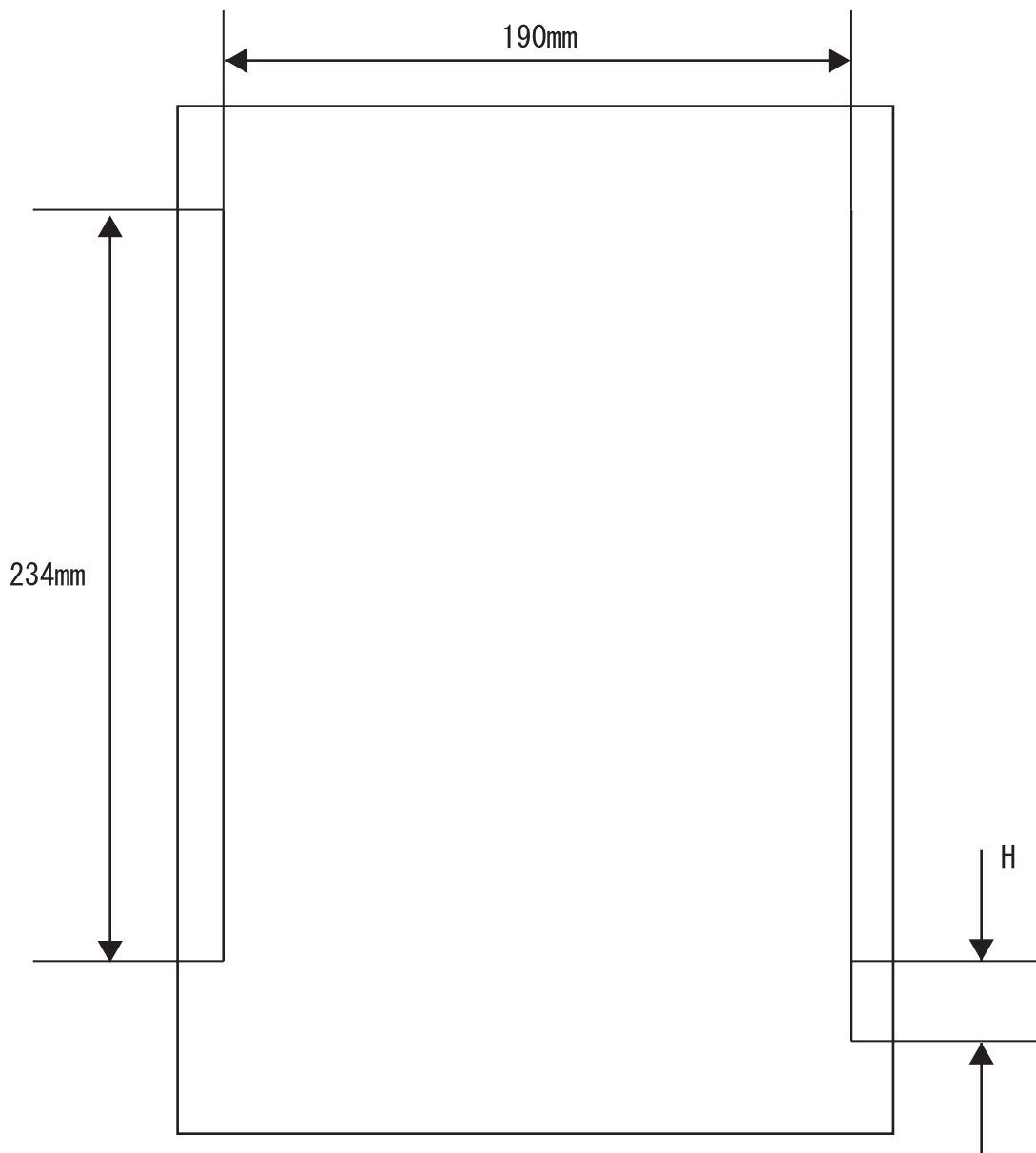
JG54A3AA

6.5 Parallelism

The parallelism is difference of feeding speed between left and right sides of the paper.

Measure the difference of length between two 234 mm long vertical lines 190 mm away each other.

Reference: less than ± 1.2 mm



JG54A4AA

Blank Page

7. Preventive Maintenance

When visiting the customer for a service call, perform the maintenance work to prevent any additional problems.

Procedure for preventive maintenance

- 1) Check how the customer is using the machine.
- 2) Write down the cumulative print count.

NOTE

**Use the cumulative print count as a guide of replacing periodic replacement parts.
Replace the periodic replacement parts as required.**

- 3) Print several test prints to ensure that there are no problems.
- 4) Remove foreign articles on BTR ASSY, FUSER ASSY and paper transfer rolls, and clean stains with a brush and dry waste cloth.

NOTE

**When stains are heavy, clean with dampened cloth, and then clean with dry cloth.
Be careful not to damage the parts.**

- 5) Cleaning the fan exhaust

Remove COVER REAR, and clean the dust on MAIN FAN with a brush.

Remove COVER FRONT, and clean the dust on FAN SUB.

NOTE

The clogged exhaust and fan can result in a temperature rise internally, leading to potential failures.

- 6) Print several test prints to ensure that there are no problems.

Blank Page

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Chapter 2 Diagnostics

1. Diagnostics

1.1 Overview

Diagnostics enable you to run various test on printer components. You can run motors forward and reverse and at different speeds, the actuation and de-actuation of sensors or switches, energize and de-energize solenoids, etc.

In addition, you can perform tray alignment routines, reset maintenance counters, set serial number and asset tag, test the operator panel and run test prints.

The Diagnostic Mode has the following menus:

- Digital Output
- Digital Input
- Analog Output
- Analog Input
- EEPROM Address
- EEPROM Value
- Maintenance Info
- Operator Panel
- Test Print
- Flash Summary
- Print Summary

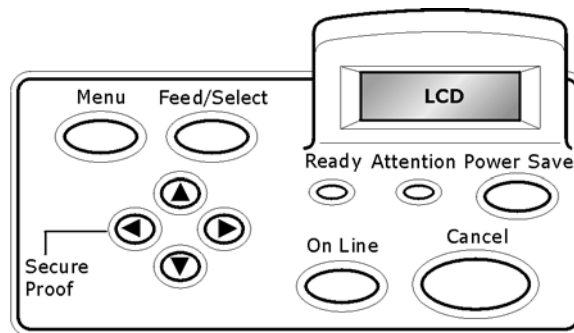
2. Entering Diagnostics

To enter diagnostics, perform the following:

1. Switch the printer power OFF.
2. Press and hold both the “Menu” and “▶” buttons on the Operator Panel
3. Switch the printer power ON.
4. Continue to hold the “Menu” and “▶” buttons until “Initializing” is displayed on the LCD.
5. Release the two buttons, after a short period of time, “Output Tests” will be displayed.
6. Proceed to Main Menu.

To exit diagnostics, repeatedly press the “Cancel” button until Ready is displayed.

Control Panel Layout



3. Main Menu

3.1 Navigating through the Diagnostic Menus

Four buttons are used to navigate through the diagnostic menus and sub-menus, (◀, ▶, ▲, ▼). From the initial menu selection “Output Tests” (see 3.2), pressing the “▼” button moves down the menu to “Input Tests” then to “Alignment” and so on. Pressing “▲” moves up through the menu. The menus are in the form of a continuous loop. When you reach the last selection on the menu, pressing “▼” will take you to the top of the menu.

With the desired menu displayed, pressing “▶” activates that menu. Any sub-menu items may be accessed by using the “▼” and “▲” buttons. If the selected menu has no sub-menus, pressing “▶” will start the test. If the test is a motor, the motor will run. If the test is a solenoid, the solenoid will energize. If the selected menu has a sub-menu, use the “▼” or “▲” buttons to move down or up through the menu selections. When the desired menu is displayed, press “▶” to activate the menu. In some cases the sub-menu may be a value. The value may be Yes / No or a number. Use the “▼” and “▲” buttons to change the value and the “▶” button to lock in the new value.

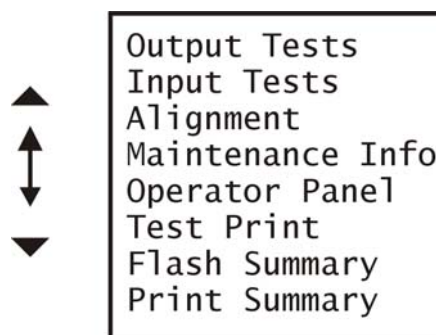
Use the “◀” button to back out of sub-menus to the next higher level. Repeatedly pressing the “◀” button will return you to the Ready condition.

3.2 Main Menu

When you first enter diagnostics, the LCD will display “Output Tests” and the first selection of the main menu.

Output Tests

The complete Main Menu is shown below. Pressing the “▼” or “▲” will scroll through the menu list.

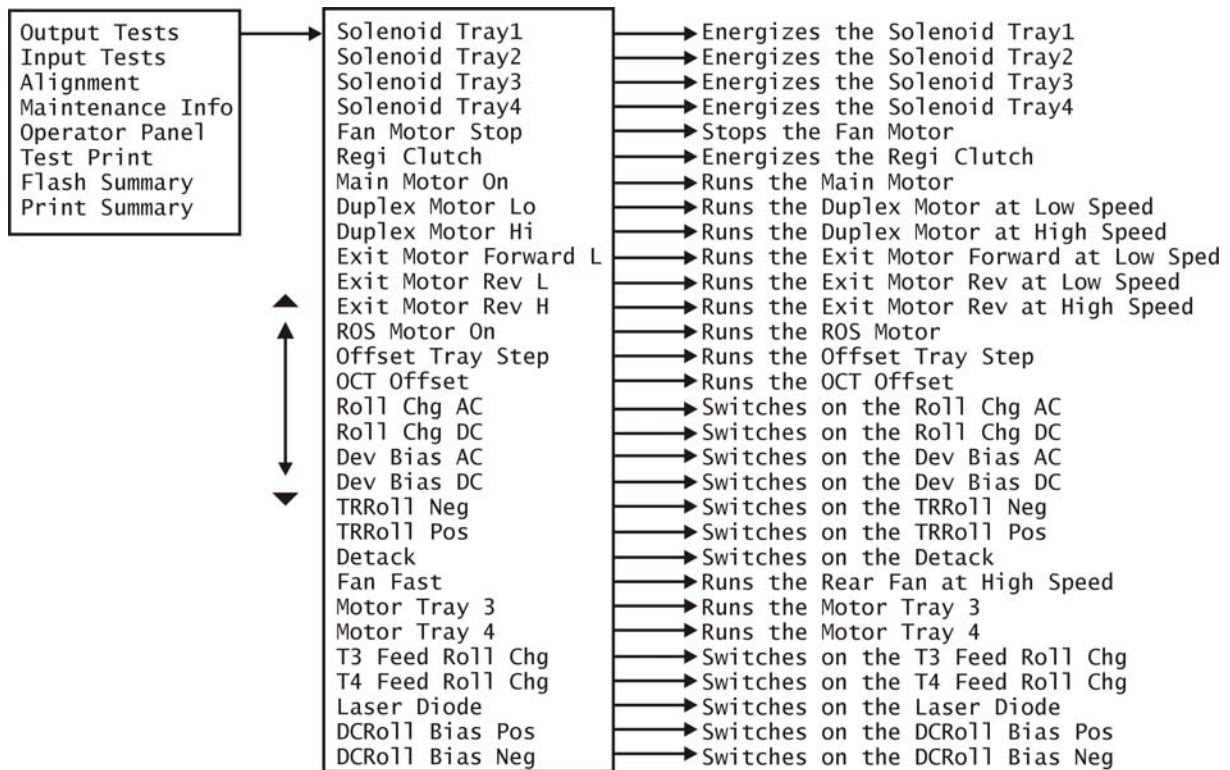


4. Output Tests

With “Output Tests” displayed on the LCD, pressing the “▶” button will enter the “Output Tests” menu and display the first menu selection.

Output Tests

The complete Output Tests menu is displayed in the figure below. None of the menu selections in the Output Tests have sub-menus. Pressing “▶” will run the menu item currently displayed. Pressing “◀” or “CANCEL” will stop the menu item displayed. These tests are verified by audible sounds. Pressing “◀” again will return you to the next higher menu or “Output Tests”.



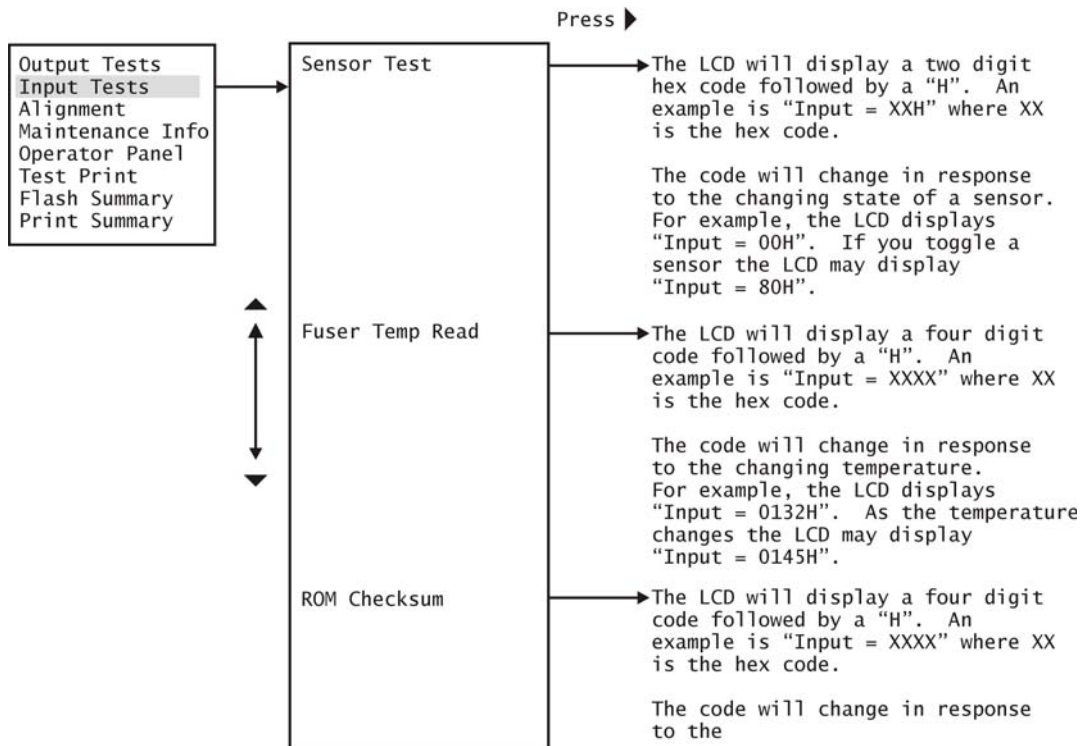
5. Input Tests

Input tests are used to test cover interlocks, paper path sensors, paper size switches, etc., fuser temperature and ROM Checksum.

With “Input Tests” displayed on the LCD, pressing the “▶” button will enter the “Input Tests” menu and display the first menu selection (Sensor Test). Pressing the “▶” button again will enable the sensor test. Pressing “◀” halts the test.

Input Tests

The following illustrates all the sub-menus in the “Input Tests” menu.



6. Alignment

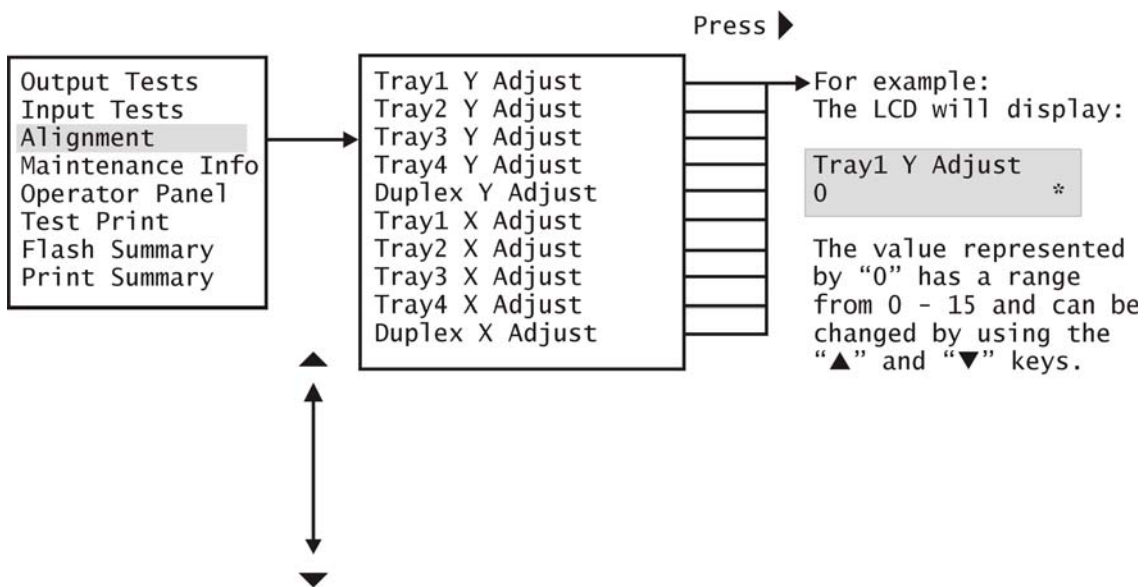
The image registration alignment allows each tray to be adjusted independently. Alignment routines are used to set “X” and “Y” values for the paper trays.

With “Alignment” displayed on the LCD, pressing the “▶” button will enter the “Alignment” menu and display the first menu selection (Tray1 Y Adjust). Pressing the “▶” button again will enable the “Tray1 Y Adjust”. Pressing “◀” halts the test.

Pressing the “▼” and “▲” buttons changes the value from 0 - 15.

Alignment

The illustration that follows shows all the sub-menus in the Alignment menu.



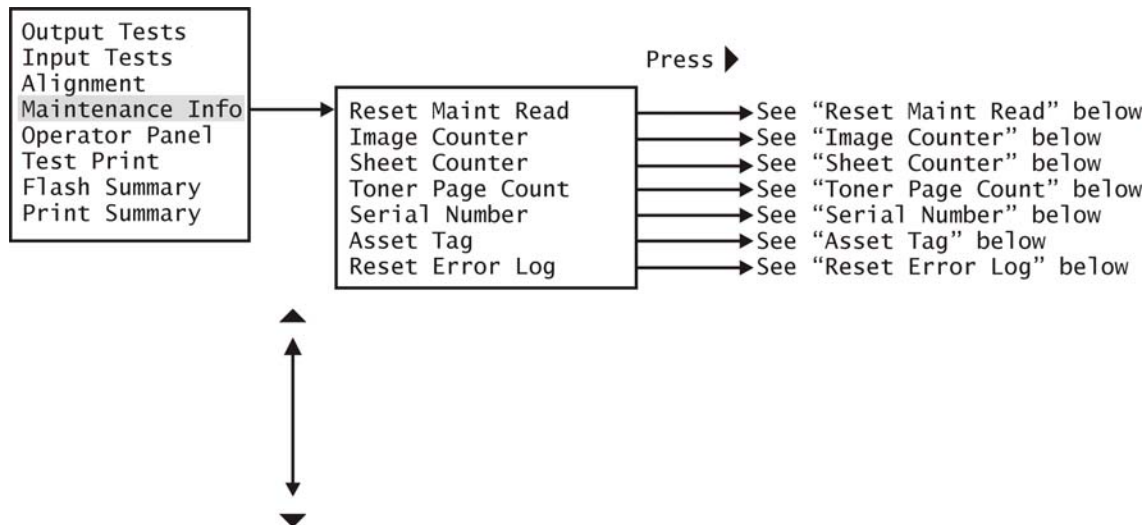
7. Maintenance Info

Maintenance Info indicates the current count of the selected menu, the serial number of the printer, or resets the error log.

With “Maintenance Info” displayed on the LCD, pressing the “▶” button will enter the Maintenance Info menu and display the first menu selection.

Maintenance Info

See the menu descriptions below.



7.1 Reset Maint Read

Pressing “▶” resets the Maintenance counter.

7.2 Image Counter

Pressing “▶” will enter the image counter menu and display a seven digit number indicating the total images produced by the printer.

7.3 Sheet Counter

Pressing “▶” will enter the sheet counter menu and display an eight digit number indicating the total sheets of paper fed by the printer.

7.4 Toner Page Count

Pressing “▶” will enter the toner page count menu and display a seven digit number indicating the total number of color prints produced by the printer.

7.5 Serial Number

Pressing “▶” will enter the Serial Number menu. The menu will allow the entering of up to a 16 digit serial number. If no number has previously been entered, the second line of the display will be blank with a line at the bottom of the first digit position.

Using the “▼” or “▲” buttons scroll through the possible choices that can be entered in each digit location. The choices are: ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~

As you can see, numbers, letters, or symbols can be entered as part of the serial number. When the desired entry is displayed in the first location, press “►.” Pressing “►” makes the second position active. Repeat the procedure above to enter all digits necessary.

You may enter up to 16 digits. If you enter less than 16 digits, after the last digit is entered, repeatedly press “◀” until the main menu is displayed

7.6 Asset Tag

Pressing “►” will enter the Asset Tag menu. The menu will allow the entering of up to a 16 digit number. If no number has previously been entered, the second line of the display will be blank with a line at the bottom of the first digit position.

Using the “▼” or “▲” buttons scroll through the possible choices that can be entered in each digit location. The choices are: ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~

As you can see, numbers, letters, or symbols can be entered as part of the Asset Tag number. When the desired entry is displayed in the first location, press “►.” Pressing “►” makes the second position active. Repeat the procedure above to enter all digits necessary.

You may enter up to 16 digits. If you enter less than 16 digits, after the last digit is entered, repeatedly press “◀” until the main menu is displayed

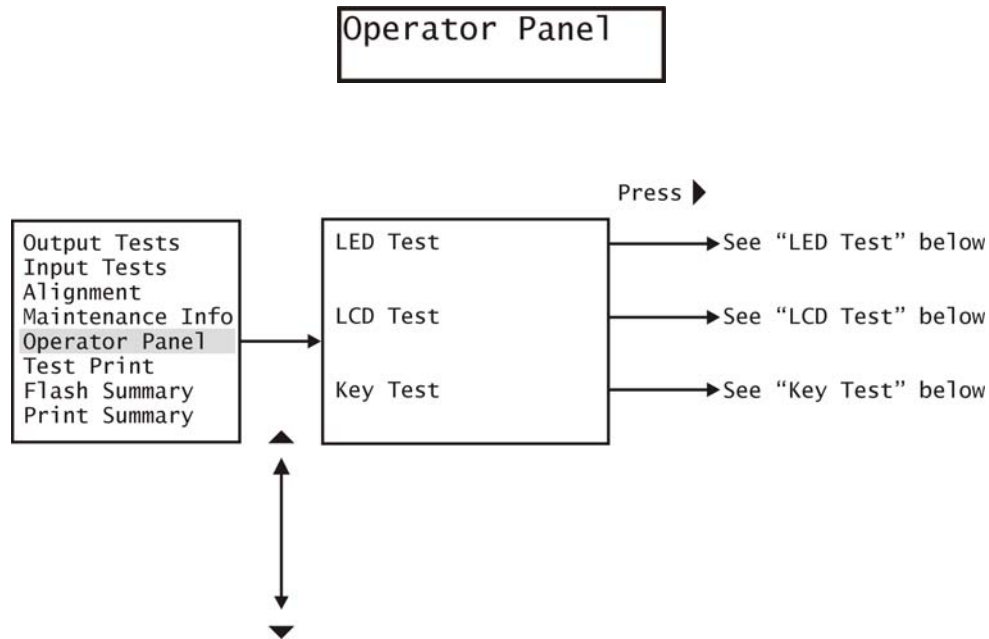
7.7 Reset Error Log

Pressing “►” will enter the reset error log submenu and display “**ONLINE to accept**” on the first line and “**CANCEL to abort**” on the second line. You can confirm resetting the error log by pressing the “Cancel” button.

8. Operator Panel

Operator Panel Menu enables the running of tests on Operator Panel. These tests include the LEDs, the LCD, and the Keys (buttons).

With "Operator Panel" displayed on the LCD, pressing the "►" button will enter the Operator Panel menu and display the first menu selection.



8.1 LED Test

With LED Test displayed, pressing the "►" button will run the LED test. The LED test is used to verify operation of the Operator Panel LEDs.

8.2 LCD Test

The LCD test is used to test the segments of the LCD display. With LCD Test displayed, pressing the "►" button will run the LCD test. The first line will display "00 - 0F". The second line will display sixteen different characters and the second line will display "10 - 1F".

Pressing the "▲" button will proceed to the next group, 20 - 2F. Again the first line will display sixteen characters and the second line will display "20 - 2F". There are sixteen different groups in this test.

They are:

00 - 0F	50 - 5F	A0 - AF	F0 - FF
10 - 1F	60 - 6F	B0 - BF	
20 - 2F	70 - 7F	C0 - CF	
30 - 3F	80 - 8F	D0 - DF	
40 - 4F	90 - 9F	E0 - EF	

8.3 Key Test

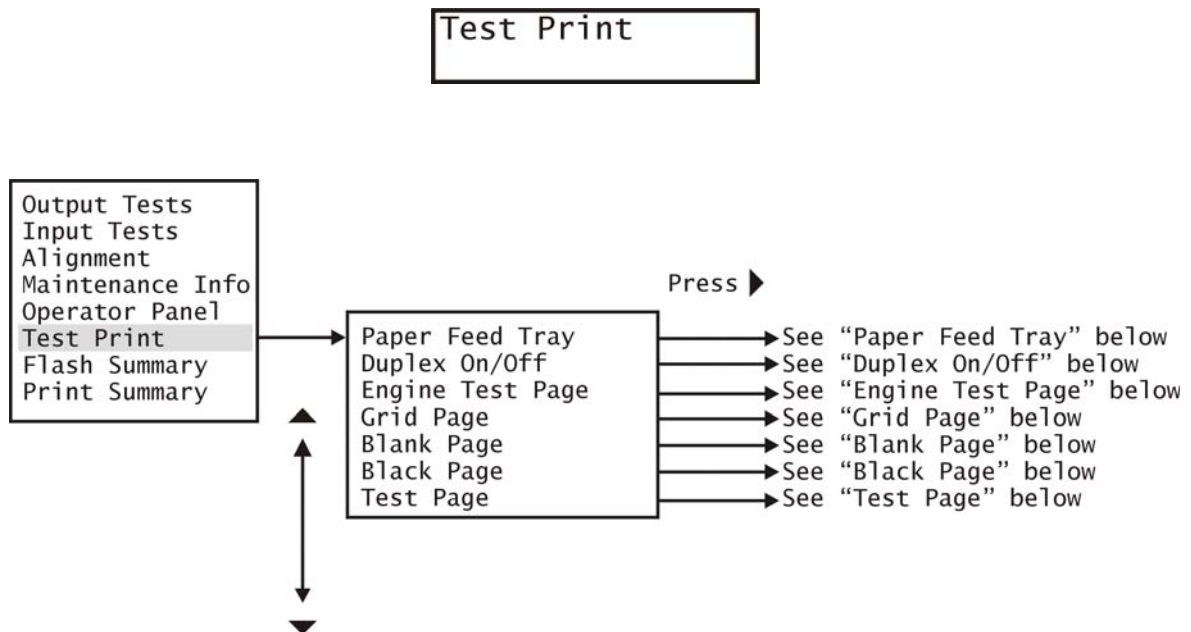
The key test enables the testing of eight buttons on the operator panel. With Key Test displayed, pressing the "▶" button will enter the key test.

Opn: This indicates that a button is Open. As you press each button, the corresponding location will change to **Cls** indicating that button is closed.

9. Test Print

The Test Print Menu enables the running of five test prints, selecting the tray for the source paper, and selecting duplex or simplex.

With “Test Print” displayed on the LCD, pressing the “►” button will enter the Test print menu and display the first menu selection.



9.1 Default Tray

With Test Print displayed on the LCD, pressing the “►” button will display the current default tray. The default tray is the tray that will be used to print any of the test pages below. The tray choices for this menu are:

- Tray 1
- Tray 2
- Tray 3
- Tray 4

Use the “▼” or “▲” buttons to scroll through the choices. With the desired tray displayed, press “►” to save your choice and return to the Test Print menu.

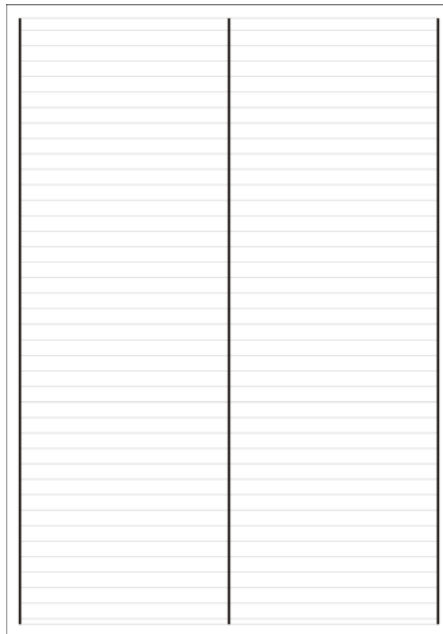
9.2 Duplex

With “Duplex” displayed on the LCD, pressing the “►” button will enter the duplex menu and display the current setting. If duplex is set to ON, all test prints will print on both sides. If duplex is set to OFF, all test prints will be printed in the simplex mode.

The choices for this menu are ON and OFF. Use the “▼” or “▲” buttons to toggle between ON and OFF. With the desired choice displayed, press “►” to save your choice and return to the Test Print Menu.

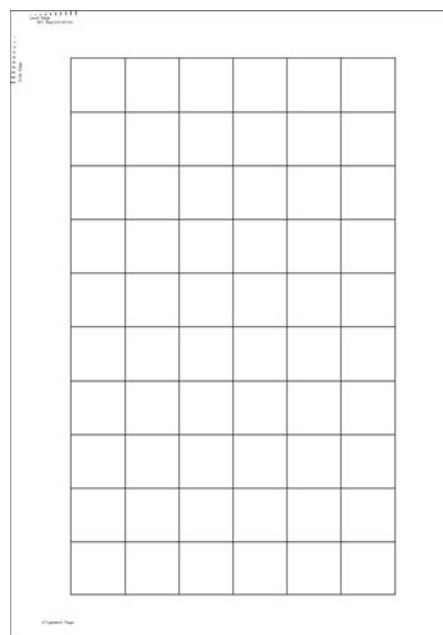
9.3 Engine Test Page

With “Engine Test Page” displayed on the LCD, pressing the “▶” button will print the Engine Test Page.

The image shows a blank page with horizontal lines and a vertical line, resembling a ledger or test page. The page is divided into two columns by a vertical line. The left column is wider than the right column. There are 20 horizontal lines in total, creating 21 rows. The page is otherwise empty.

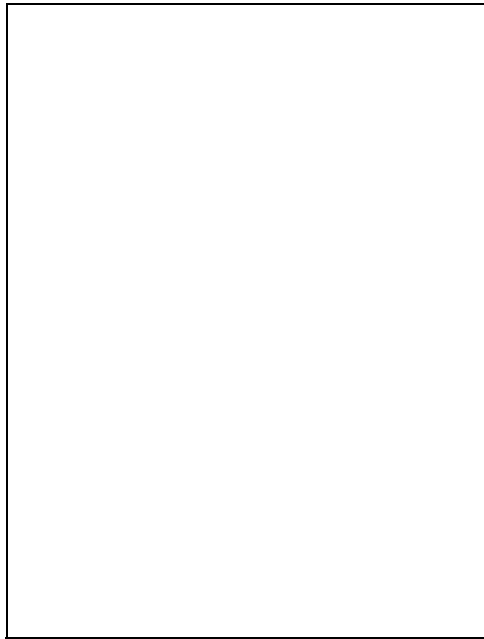
9.4 Grid Page

With “Grid Page” displayed on the LCD, pressing the “▶” button will print the Grid Page.

The image shows a grid page with a 10x10 grid of squares. The grid is composed of 10 columns and 10 rows of squares. The page is otherwise empty, with some faint text visible in the top left corner and bottom right corner.

9.5 Blank Page

With “Blank Page” displayed on the LCD, pressing the “▶” button will print a Blank Page.



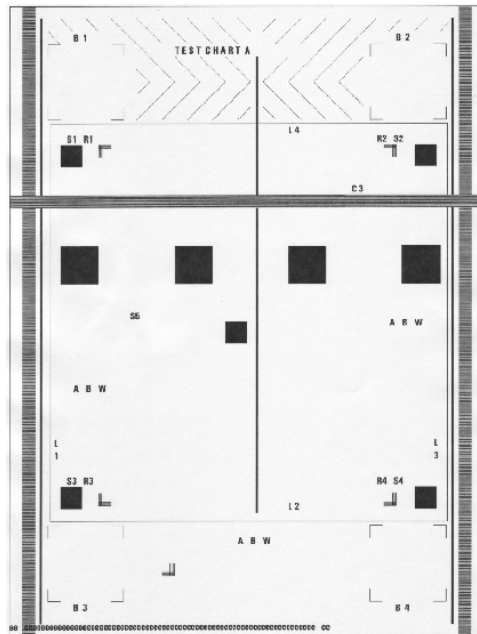
9.6 Black Page

With “Black Page” displayed on the LCD, pressing the “▶” button will print a page with a large black square.



9.7 Test Page

With “Test Page” displayed on the LCD, pressing the “▶” button will print the Test Page.



10. Flash Summary

With "Flash Summary" displayed on the LCD, pressing the "►" button will print the Flash Summary (shown below). When the print completes, the display will remain at the Flash Summary Menu.

Flash Summary

This is an example of the Flash Summary Report

Flash Summary

SIMM 0 (CODE FLASH):

*Socket 0: 20 MB (TOSHIBA 58256) - 1280 blocks, 0 reserved
TOTAL : 20 MB*

SIMM 1 (CODE FLASH):

*Socket 0: 12 MB (TOSHIBA 58256) - 768 blocks, 0 reserved
TOTAL : 12 MB*

FILES:

CORE : size = 200,488: July 18, 2006 04:49:09 PM
MDM : <Directory>
FCB. : size = 0: June 8, 2006 09:41:13 AM

tfm : <Directory>
FCB. : size = 0: June 8, 2006 09:41:13 AM

11. Print Summary

With “Print Summary” displayed on the LCD, pressing the “▶” button will print the Print Summary (shown below). When the print completes, the display will remain at the Print Summary Menu.

Print Summary

This is an example of the Print Summary Report

Diagnostics Summary

Alignment

Tray1 Y Adjust = 8
 Tray2 Y Adjust = 8
 Tray3 Y Adjust = 8
 Tray4 Y Adjust = 8
 Duplex Y Adjust = 8
 Tray1 X Adjust = 8
 Tray2 X Adjust = 8
 Tray3 X Adjust = 8
 Tray4 X Adjust = 8
 Duplex X Adjust = 8

Maintenance Info

Image Counter = 2604
 Sheet Counter = 33554673
 Toner Page Count = 1894
 Serial Number = XXXXXXXXXXXXX

NVM Settings

NVM Location 0 = 8
 NVM Location 1 = 8
 NVM Location 2 = 8
 NVM Location 3 = 8
 NVM Location 4 = 8
 NVM Location 5 = 8
 NVM Location 6 = 8
 NVM Location 7 = 8
 NVM Location 8 = 8

Error Log

19 : 2038
 SE OE :
 22 : 2061
 22 : 2061
 SE OE :
 SE OE :
 SE OE :

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Removal and Replacement Procedures

1. Removal and Replacement Procedures (RRPs)

Removal and replacement procedures are described for the 9 major sections of the parts listings, plus the 3 optional components.

RRP 1	COVERS
RRP 2	150 PAPER CASSETTE
RRP 3	500 PAPER CASSETTE
RRP 4	150 PAPER FEEDER
RRP 5	500 PAPER FEEDER
RRP 6	XEROGRAPHICS
RRP 7	550 PAPER EXIT
RRP 8	FRAME & DRIVE
RRP 9	ELECTRICAL
OPTIONS	
RRP 10	DUPLEX
RRP 11	OCT
RRP 12	550 PAPER FEEDER

NOTE

Parts are controlled as spare parts. When servicing parts that have no procedures, carefully observe their assembly detail before starting the service.

NOTE

Refer to the manual for optional parts.

NOTE

Unless necessary, optional parts should not be removed when performing a service operation.

1.1 Before starting service work

- ◆ Turn the printer power OFF and remove the power cord from the outlet before beginning a procedure.
- ◆ When working on, or around the FUSER ASSEMBLY, ensure the temperature has cooled sufficiently.
- ◆ Applying unreasonable force to the parts or hardware while servicing the printer may cause them to break or compromise their performance.
- ◆ Be sure to use the correct screw for the application. Different screws are used for plastic and sheet metal. Incorrect use of the screw type may result in damage to the screw threads or other hardware.

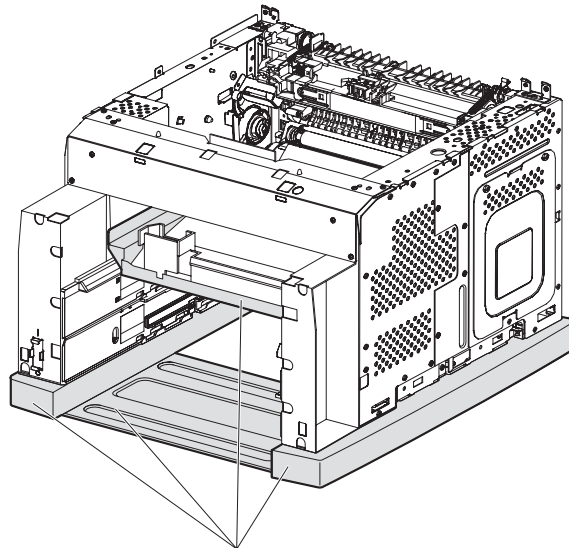
NOTE

Locations on the frame where the character "TAP" is stamped, should use the screws designated for plastic.

- ◆ Remove the 150 Sheet Paper Cassette, 550 Sheet Paper Cassette and the EP Cartridge. Place the components in a safe place during servicing.
- ◆ Damage to sensitive electronic components should be avoided by grounding the body using a wrist band or other suitable Electrostatic Discharge (ESD) tools.

1.2 Prohibited matter

Do not remove the frame components shown in the figure below. Removing any of these components will make the laser printer go out of alignment. If the frame components are removed or their screws loosened by mistake, be sure to replace them again on a stable and firm horizontal work surface.

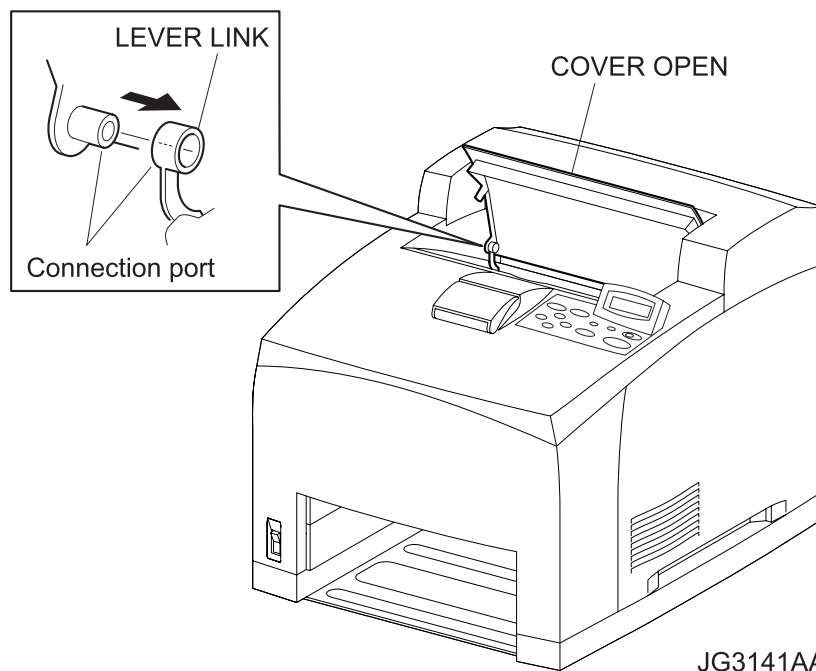


✕ Never disassemble these parts

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1.3 Confirmation after service

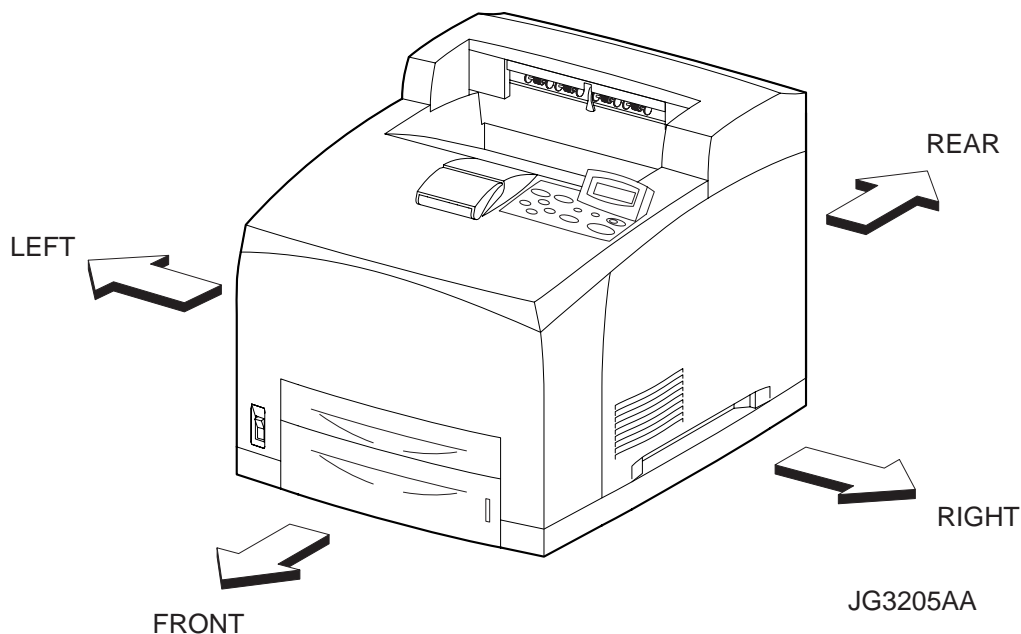
After a service, confirm that the COVER OPEN and the LEVER LINK are connected properly, and confirm the operation of the COVER OPEN by opening and closing it.



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1.4 Description of procedures

- ❑ "RRP X,Y "AAAAA" at the top of procedures represent the part name AAAAA are to be removed and replaced.
- ❑ "(PL X.Y.Z)" following the parts name in procedures represent that the parts are those of the plate (PL) "X.Y", item "Z" in Chapter 5, Parts List. Their forms, replacing position or other conditions can be seen in Chapter 5, Parts List.
- ❑ In the procedures, directions are represented as follows.
 - Front: Front when you are facing the front of this laser printer.
 - Rear: Inner direction when you are facing the front of this laser printer.
 - Left: Left hand when you are facing the front of this laser printer.
 - Right: Right hand when you are facing the front of this laser printer.



- ❑ The screws in procedures are expressed with their replacing position, color, characteristics and nominal length, etc.
- ❑ "In case of _____ specifications" in the procedures indicate that service operation should be provided only to laser printer of specified specifications (service operation should not be provided for laser printer of specifications not covered).
- ❑ "RRP X.Y" in the midst or at the end of sentences in the procedures indicate that work procedures related with the "RRP X.Y" are described.
- ❑ "Figure X.Y" at the end of the sentences of procedures indicate that illustrations instructive for the "RRP X.Y" are included.
- ❑ "Z)" in the illustrations correspond to "Z)" of the service procedures.
- ❑ The screws in the illustrations should be removed using a plus (+) screwdriver unless otherwise specified.
- ❑ A black arrow in the illustrations indicate movement in the arrow mark direction. Numbered black arrows indicate movement in the order of the numbers.
- ❑ White arrows (FRONT) in the illustrations indicate the front direction.
- ❑ For the positions of the connectors (P/J), refer to Chapter 7, Electric wiring.

RRP1. COVERS

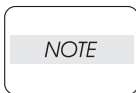
RRP1.1 COVER REAR (PL 1.1)

Removal

- 1) Remove the 500 COVER REAR (PL 7.1) (RRP7.9)
- 2) Remove the 5 screws (silver with flange, 8mm x 2, gold tapping, 8mm x 3) securing the COVER REAR to the printer (Figure 1).
- 3) Open the COVER REAR in the direction of the arrow. Release the 3 hooks securing the COVER REAR to the printer, and remove it from the printer.
- 4) Disconnect the connector (P/J244).

Replacement

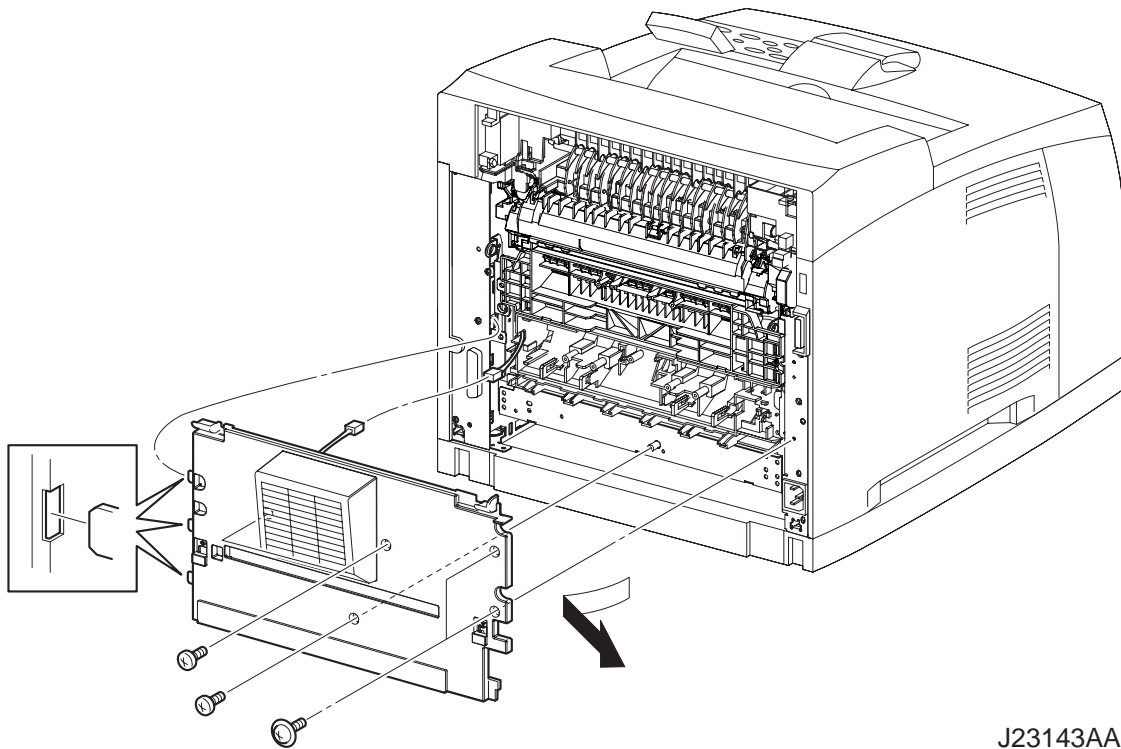
- 1) Connect the connector (P/J244).
- 2) Insert the 3 hooks on the left side of the COVER REAR into the 3 holes of the printer (Figure 1).
- 3) Secure the COVER REAR to the printer using the 5 screws (silver with flange, 8mm x 2, gold tapping, 8mm x 3).



There are 2 kinds of screws, make sure they are installed correctly.

When tightening the screws be careful not to pinch the harness between the board and frame.

- 4) Install the 500 COVER REAR (PL 7.1.21). (RRP7.9)



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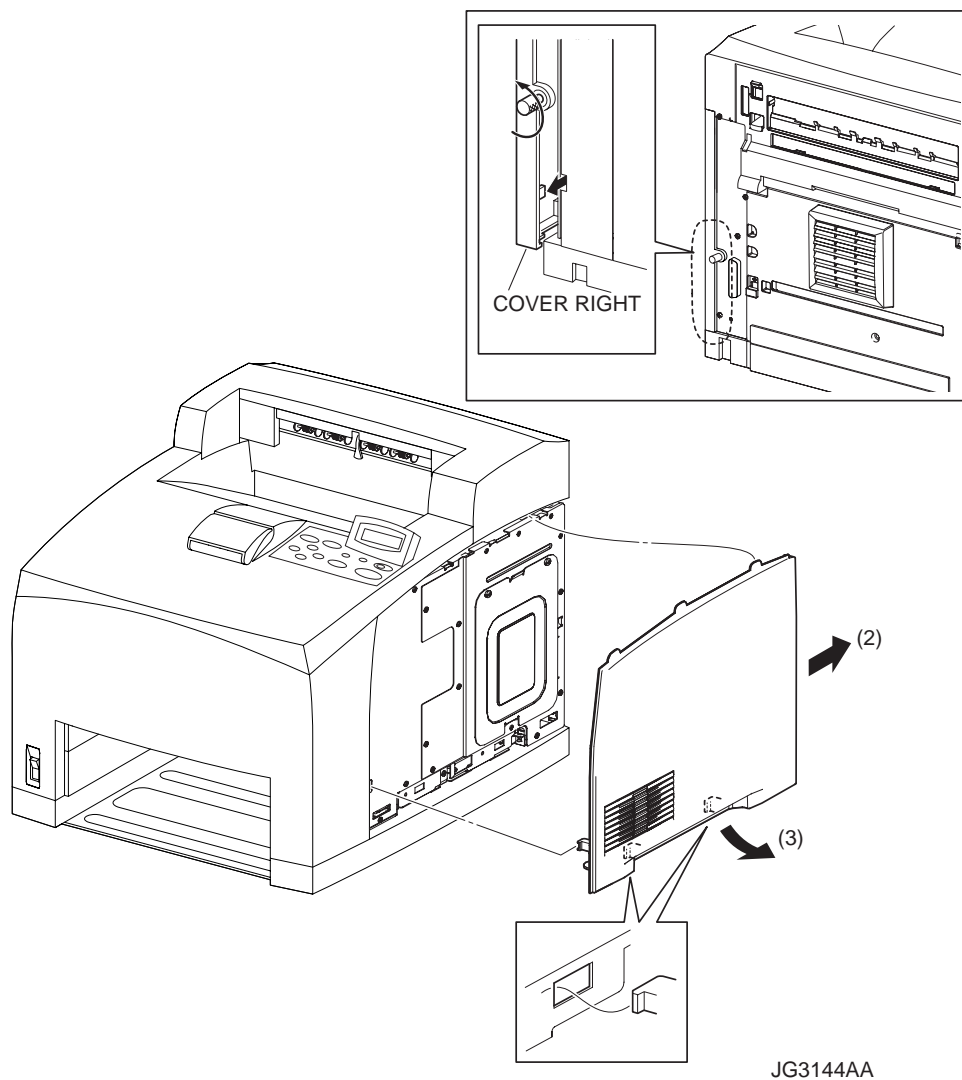
Figure 1. Cover Rear

RRP1.2 COVER RIGHT (PL 1.1)**Removal**

- 1) Loosen the screw securing the COVER RIGHT to the rear side of the printer (Figure 1).
- 2) Shift the COVER RIGHT in the direction of the arrow to release the 4 hooks, two below, one in front and one on rear, securing the cover to the printer.
- 3) Shift the COVER RIGHT downward to release the 3 hooks securing the top of it, and remove the COVER RIGHT from the printer.

Replacement

- 1) Shift the COVER RIGHT upward to lock the 3 hooks to the printer (Figure 1).
- 2) Shift the COVER RIGHT frontward to secure the 4 hooks, two below, one in front and one on rear, to the printer.
- 3) Secure the COVER RIGHT to the printer using the screw on the rear side of the printer.

**Figure 1. Cover Right**

RRP1.3 COVER LEFT (PL 1.1)**Removal**

- 1) Remove the 500 COVER REAR (PL 7.1.21) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Shift the COVER LEFT in the direction of the arrow to release the 4 hooks, two below and two on rear, securing the cover to the printer (Figure 1).
- 4) Shift the COVER LEFT downward to release the 3 hooks securing the top of it, and remove the COVER LEFT from the printer.

Replacement

- 1) Shift the COVER LEFT upward to lock the 3 hooks to the printer.
- 2) Shift the COVER LEFT frontward to lock the 4 hooks, two below and two on rear, to the printer.
- 3) Install the COVER REAR (PL 1.1) (RRP1.1).

NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 4) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

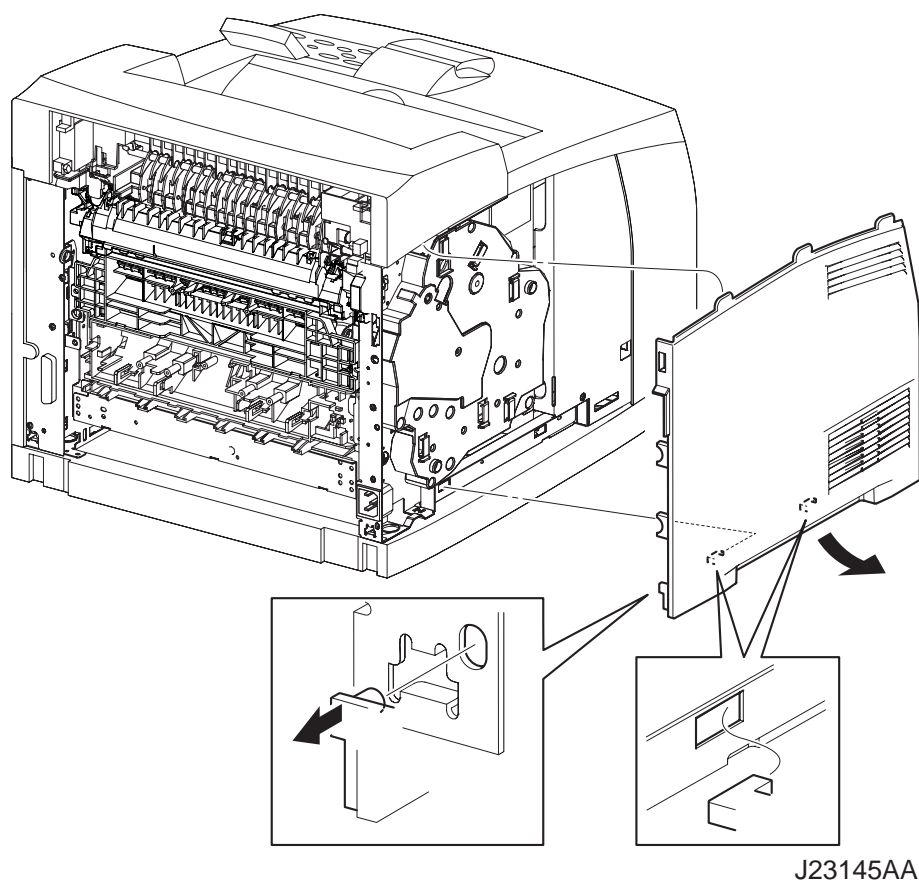


Figure 1. Cover Left

RRP1.4 COVER TOP (PL 1.1), OPERATION PANEL (PL 1.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 4) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1)
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the 2 screws (silver with flange, 8mm) securing the COVER TOP to the printer (Figure 1).
- 8) Remove the LEVER LINK (PL 6.1) from the boss of the COVER OPEN (PL 1.1) (Figure 1).

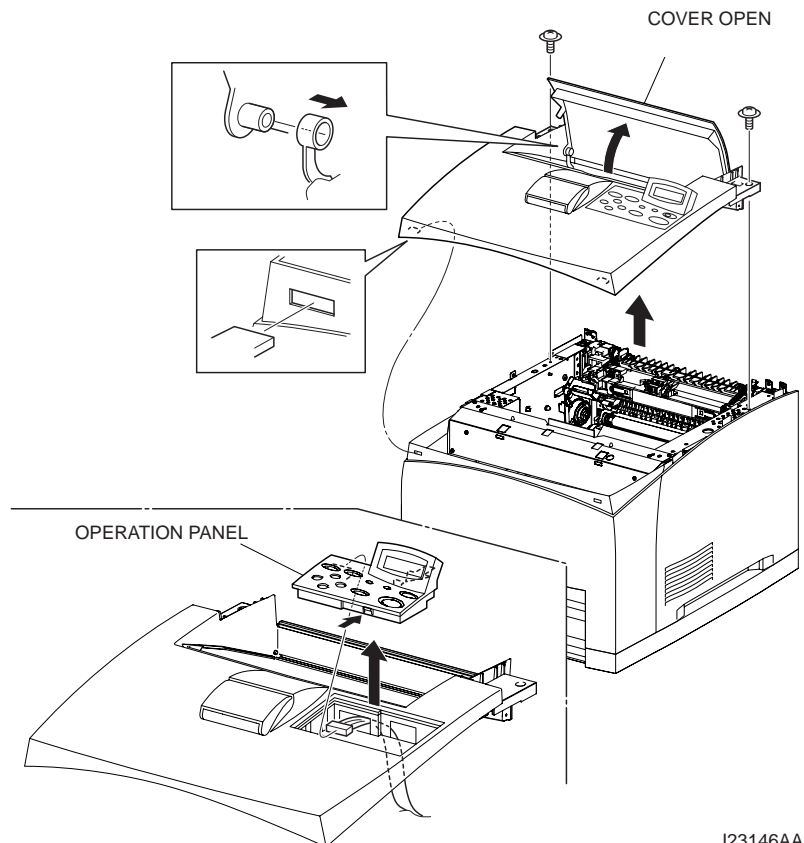
NOTE

When removing the LEVER LINK from the boss of the COVER OPEN, the cover is opened, and the LEVER LINK is extended (Figure 1).

NOTE

In the following steps, do not separate the COVER TOP too far from the printer, since the OPERATION PANEL (PL 1.1) attached to the COVER TOP is connected to the printer.

- 9) Release the 2 hooks securing the front of the COVER TOP to the COVER FRONT (PL 1.1), and pull out the COVER TOP slightly away from the printer.
- 10) Disconnect the connector (P/J1) of the OPERATION PANEL.
- 11) Release the harness clamps of the OPERATION PANEL.
- 12) Remove the COVER TOP.
- 13) Release the 2 hooks securing the OPERATION PANEL to the COVER TOP, and remove the OPERATION PANEL.



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Figure 1. Top Cover & Operation Panel

Replacement

- 1) Install the OPERATION PANEL to the COVER TOP, and secure it using the 2 hooks.
- 2) Connect P/J1 of the OPERATION PANEL.
- 3) Secure the harnesses with the 2 clamps on the OPERATION PANEL.
- 4) Install the COVER TOP to the printer, and secure it to the COVER FRONT (PL 1.1) using the 2 hooks at the front of the COVER TOP.
- 5) Put the boss of the COVER OPEN (PL 1.1) into the hole of the LEVER LINK (PL 6.1.29).

NOTE

When putting the boss of the COVER OPEN into the hole of the LEVER LINK, the cover should be opened, and the LEVER LINK should be extended.

- 6) Secure the COVER TOP to the printer using the 2 screws (silver with flange, 8mm).
- 7) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).

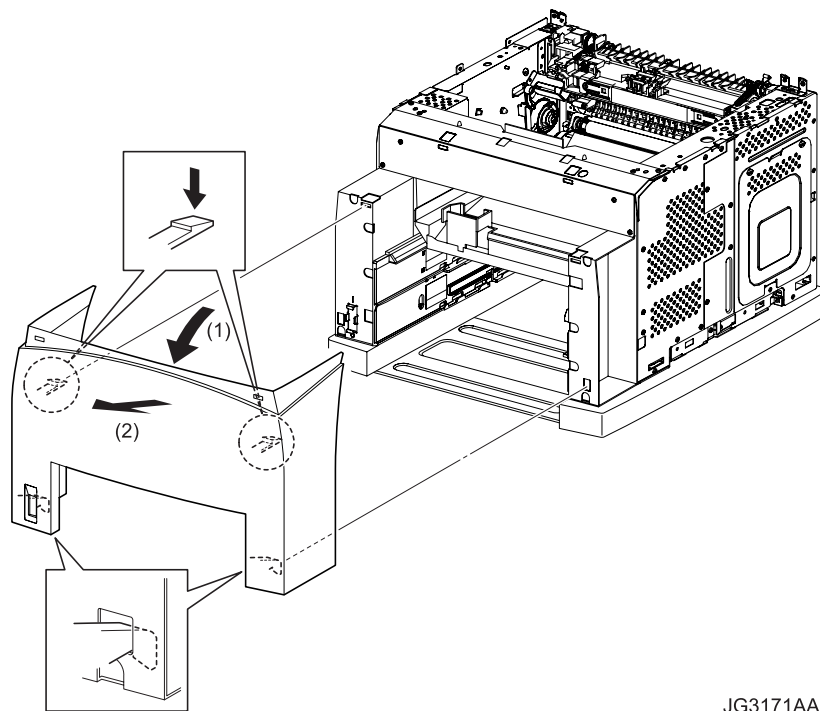
NOTE

When installing, put the harnesses of the MOTOR ASSEMBLY EXIT and HARNESS ASSEMBLY EXIT SNR1 into the square hole of the frame.

- 8) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 9) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 10) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 11) Install the COVER REAR (PL 1.1) (RRP1.1).
- 12) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP1.5 COVER FRONT (PL 1.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9)
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1)
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3)
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2)
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1)
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the COVER TOP (PL 1.1) (RRP1.4)
- 8) Release the 2 hooks of the COVER FRONT securing it to the printer by pressing down the 2 hooks at the upper portion of the cover, and open it to the front (arrow 1) (Figure 1).
- 9) Shift the COVER FRONT in the direction of the arrow 2 (Figure 1). Remove the cover from the printer by releasing the 2 hooks at the lower portion of the cover (Figure 1).



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Figure 1. Cover Front**Replacement**

- 1) Hang the 2 hooks at the lower portion of the COVER FRONT to the printer (Figure 1).
- 2) Lock the 2 hooks at the upper portion of the COVER FRONT to the printer, and secure it to the printer (Figure 1).
- 3) Install the COVER TOP (PL 1.1) (RRP1.4).
- 4) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).

NOTE

When installing, put the harnesses of the MOTOR ASSEMBLY EXIT and HARNESS ASSEMBLY EXIT SNR1 into the square hole of the frame.

- 5) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 7) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 8) Install the COVER REAR (PL 1.1) (RRP1.1).
- 9) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP2. 150 PAPER CASSETTE

RRP2.1 ROLL ASSEMBLY RETARD (PL 2.1.2)**Removal**

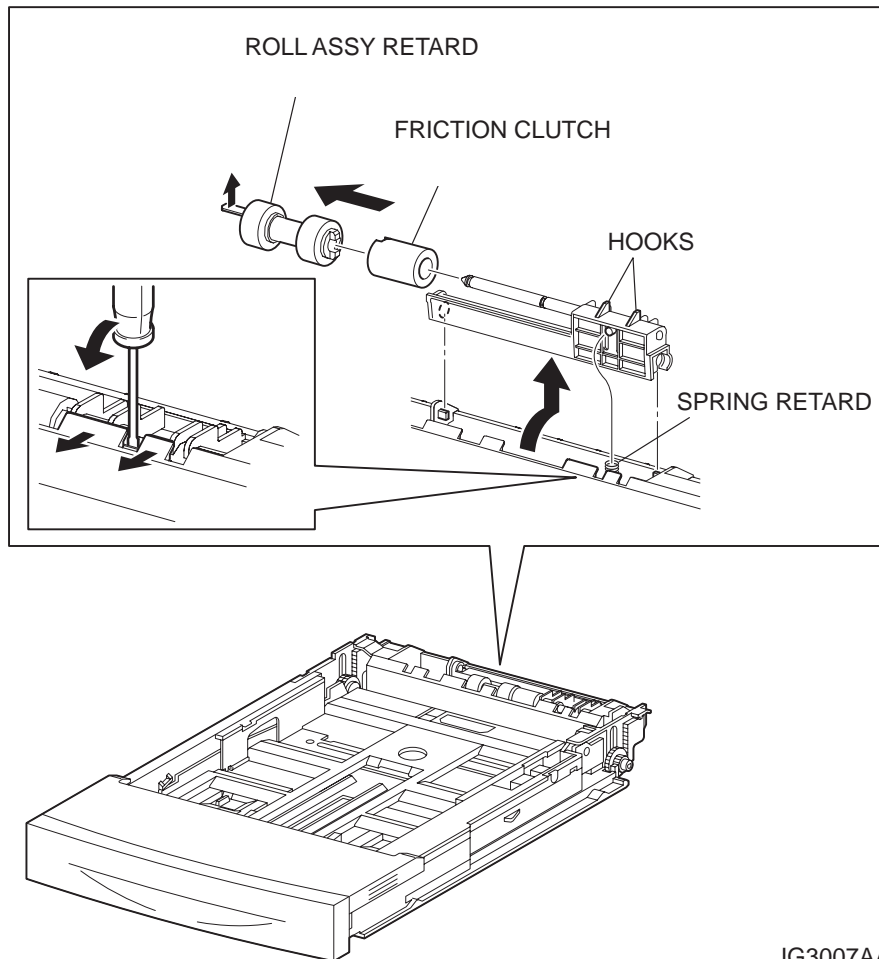
- 1) Pull out the 150 PAPER CASSETTE from the printer.
- 2) Release the hooks securing the HOLDER RETARD (PL 2.1) to the 150 PAPER CASSETTE using a screwdriver (Figure 1).
- 3) Lift up the HOLDER RETARD in the direction of the arrow, and remove it.
- 4) Release the hook securing the RETARD ROLL ASSEMBLY, and pull it out from the SHAFT RETARD (PL 2.1).

NOTE

When removing, do not touch the roller surface of the ROLL ASSEMBLY RETARD.

NOTE

When removing HOLDER RETARD, be careful not to lose the SPRING RETARD.



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Figure 1. 150 Paper Cassette

Replacement

- 1) Install the ROLL ASSEMBLY RETARD to the SHAFT RETARD (PL 2.1), and secure the ROLL ASSEMBLY RETARD with the hook.

NOTE

When installing, do not touch the roller surface of the ROLL ASSEMBLY RETARD.

NOTE

Be sure to install the hook of the ROLL ASSEMBLY RETARD in the groove of the SHAFT RETARD.

- 2) Move the HOLDER RETARD (PL 2.1) in the opposite direction of the arrow, and install it to the 150 PAPER CASSETTE.

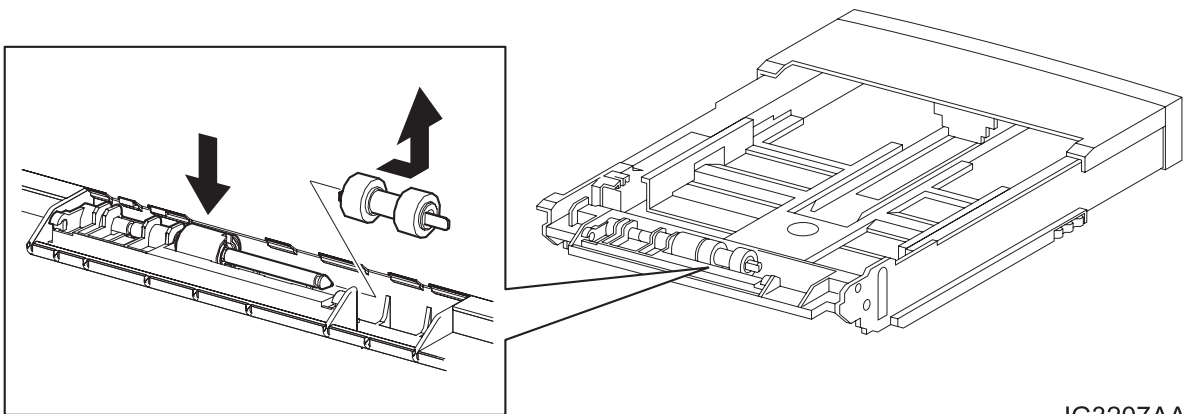
NOTE

After installing, make sure the HOLDER RETARD comes back to the former position with the spring force of the SPRING RETARD (PL 2.1), when pushing down the HOLDER RETARD and then release the finger from it.

- 3) Install the 150 PAPER CASSETTE to the printer.

NOTE

Other than the procedure above, it is possible to remove the ROLL ASSEMBLY RETARD by pushing down the HOLDER RETARD (Figure 2).

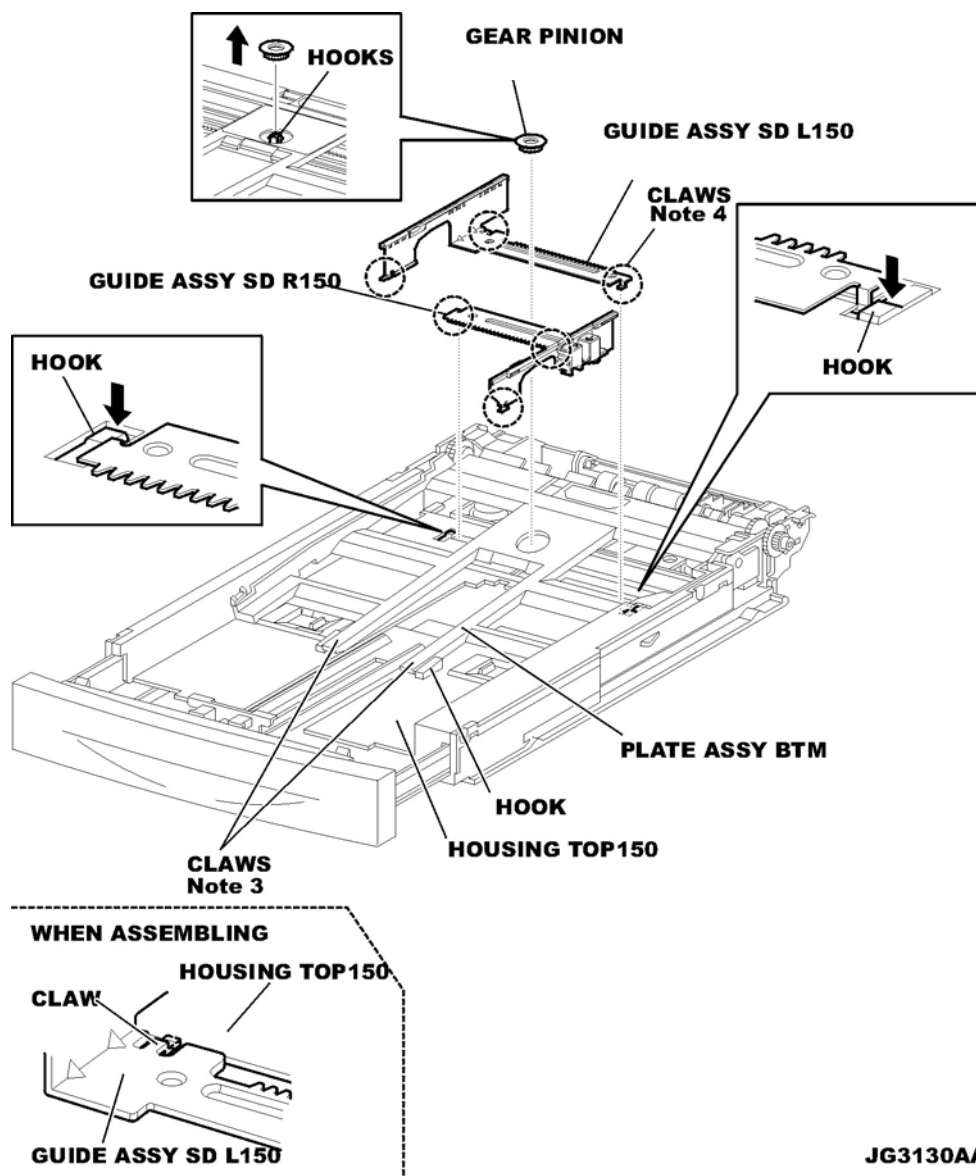


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Figure 2. Roll Assembly Retard

RRP2.2 RACK SIZE (PL 2.1)**Removal**

- 1) Remove the COVER CST (PL 2.1) from the 150 PAPER CASSETTE.
- 2) Release the lock of the LOCK EXTENSION, and pull out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 2.1) to the HOUSING TOP 150 (PL 2.1), and remove the PINION GEAR (Figure 1).
- 4) While pressing down the lock of the STOPPER GEAR (PL 2.1), release the lock of the LEVER BTM LOCK (PL 2.1) to lift up the PLATE ASSEMBLY BTM (PL 2.1) (Figure 1).
- 5) Slide the GUIDE ASSEMBLY SD L150 (PL 2.1) inward, and remove it from the HOUSING TOP 150 by pressing down the hook of the HOUSING TOP 150.
- 6) Slide the GUIDE ASSEMBLY SD R150 (PL 2.1) inward, and remove it from the HOUSING TOP 150 by pressing down the hook of the HOUSING TOP 150.



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Figure 1. 150 Paper Cassette

- 7) Remove the 2 screws (gold tapping, 8mm) from both right and left side, as well as the 6 screws (gold tapping, 8mm) on the back, that secure the HOUSING TOP 150 (PL 2.1) to the HOUSING BASE 150 (PL 2.1) (Figure 2).
- 8) Release the 4 hooks of the HOUSING TOP 150, and remove the HOUSING TOP 150 and HOUSING EXTENSION 150 (PL 2.1) from the HOUSING BASE 150 (Figure 2).
- 9) Remove the 4 screws (gold tapping, 6mm) securing the COVER EXTENSION (PL 2.1) to the HOUSING EXTENSION 150.
- 10) Remove the COVER EXTENSION from the HOUSING EXTENSION 150.

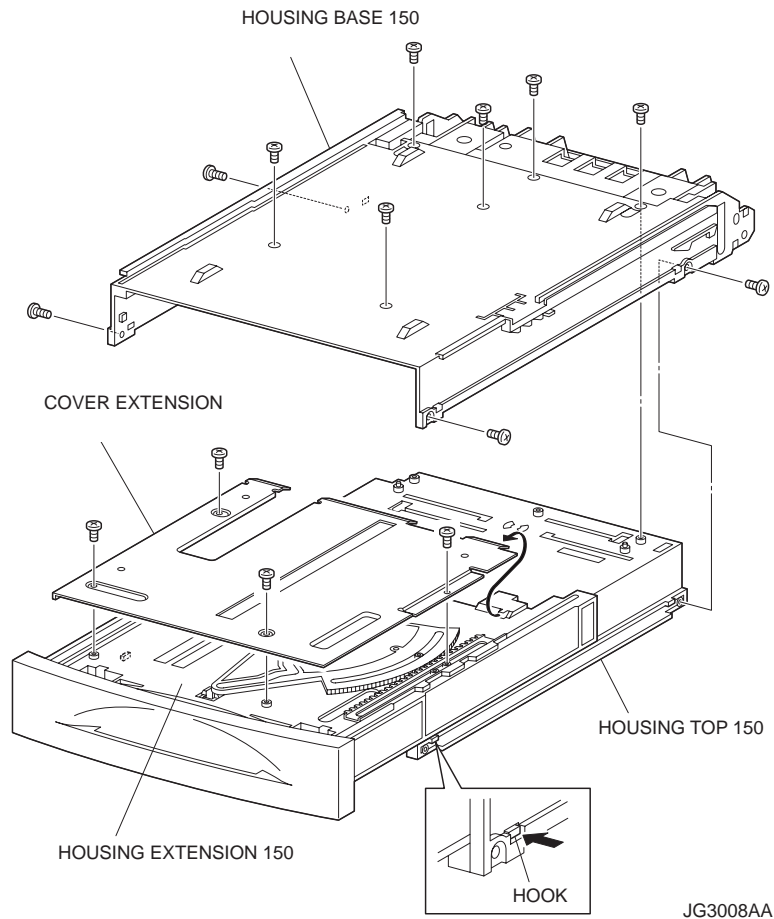


Figure 2. 150 Paper Cassette Base

- 11) Lift the front of the RACK SIZE (PL 2.1) a little, and turn it in the direction of the arrow to remove it from the HOUSING EXTENSION 150 (Figure 3).

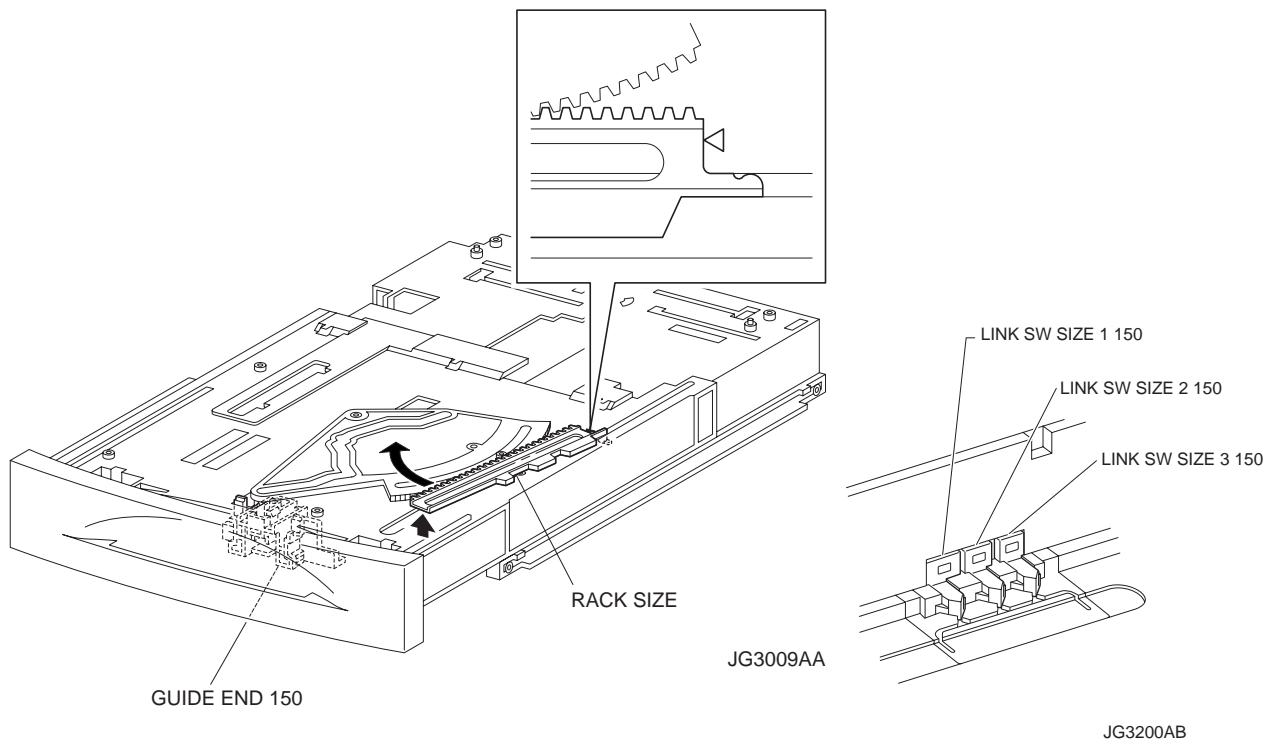


Figure 3. Size Rack

Replacement

- 1) Put the hook of the tip of the RACK SIZE (PL 2.1) into the groove of the HOUSING EXTENSION 150, and turn it in the opposite direction of the arrow.
- 2) Align the end of the RACK SIZE with the triangle mark printed on the HOUSING EXTENSION 150 as shown in the figure, and install the RACK SIZE to the HOUSING EXTENSION 150.

NOTE

When installing the RACK SIZE, be sure to pull out the GUIDE ASSEMBLY END 150 (PL 2.1) as far as it will go. (NOTE 1) (Figure 3).

- 3) Install the COVER EXTENSION (PL 2.1) to the HOUSING EXTENSION 150 using the 4 screws (gold tapping, 6mm).

NOTE

When installing, make sure the COVER EXTENSION is inserted under 3 claws of the HOUSING EXTENSION 150. (NOTE 2) (Figure 2).

NOTE

Use 6mm size of fixed screw. If 8mm size of screw is used, HOUSING EXTENSION 150 doesn't operate smoothly and LOCK EXTENSION 150 doesn't operate correctly.

- 4) Install the HOUSING EXTENSION 150 and HOUSING TOP 150 (PL 2.1) to the HOUSING BASE 150 (PL 2.1) while pushing the LINK SW SIZE1-150 (PL 2.1), LINK SW SIZE2-150 (PL 2.1) and LINK SW SIZE3-150 (PL) of the HOUSING BASE 150 outward as shown in the figure (Figure 3).

NOTE

Be sure to put 2 claws on the top of the PLATE ASSEMBLY BTM under the hooks on the HOUSING TOP 150. (NOTE 3) (Figure 1).

- 5) After assembling the HOUSING TOP 150 to 150 BASE HOUSING using the 4 hooks, secure them using the 2 screws (gold tapping, 8mm) on both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back.

NOTE

After tightening the screws, move the GUIDE ASSEMBLY END 150 back and forth, and make sure that the LINK SW SIZES operate smoothly.

- 6) While pressing down the hook of the HOUSING TOP 150, install the GUIDE ASSEMBLY SD R150 (PL 2.1) to the HOUSING TOP 150.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD R150 sit correctly in the grooves of the HOUSING TOP 150. (NOTE 4) (Figure 1).

- 7) While pressing down the hook of the HOUSING TOP 150, install the GUIDE ASSEMBLY SD L150 (PL 2.1) to the HOUSING TOP 150.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD L150 sit correctly in the grooves of the HOUSING TOP 150. (NOTE 4) (Figure 1).

- 8) Push the PLATE ASSEMBLY BTM downward to lock.
9) With completely opened GUIDE ASSEMBLY SD L150 (PL 2.1) and GUIDE ASSEMBLY SD R150 (PL 2.1) to the both sides, install the GEAR PINION (PL 2.1) to the HOUSING TOP 150.

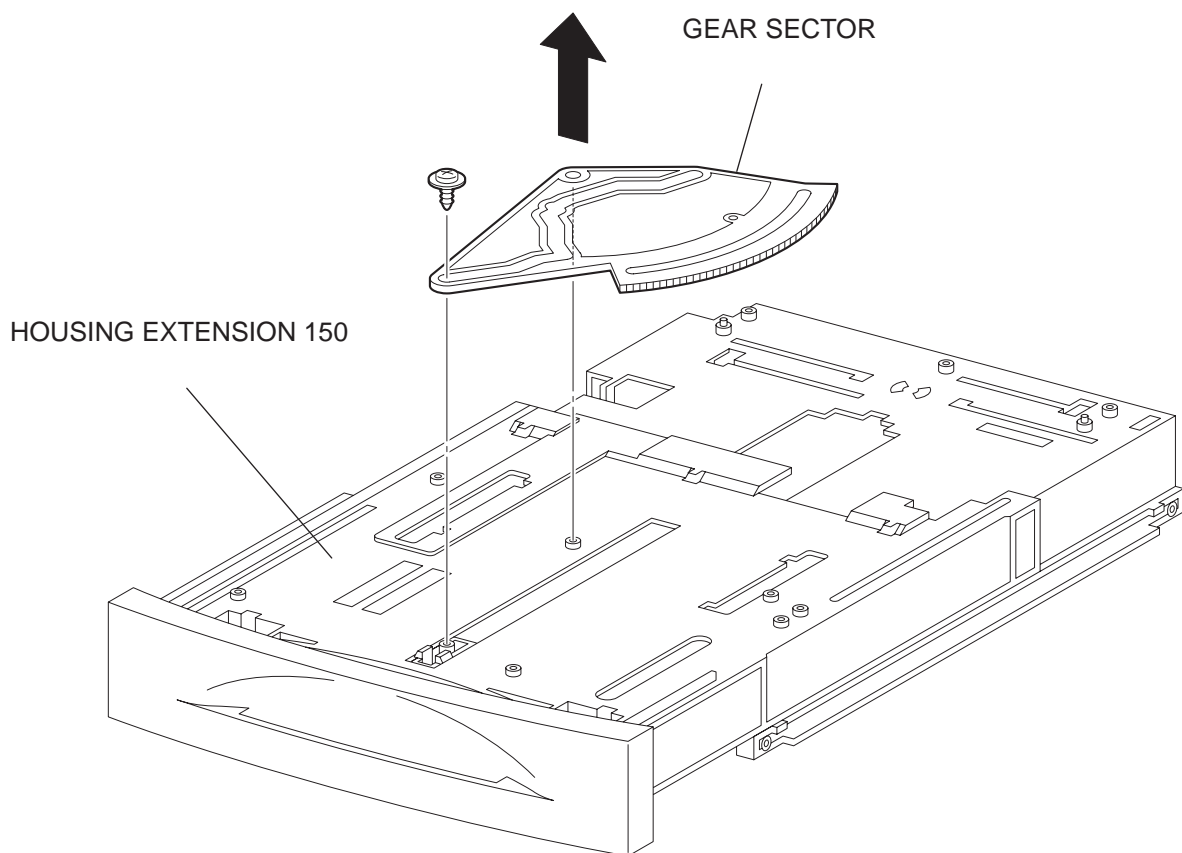
NOTE

When installing the GEAR PINION, make sure the GUIDE ASSEMBLY SD R150 and GUIDE ASSEMBLY SD L150 are completely opened. If not, the side register may be misaligned.

- 10) Install the COVER CST (PL 2.1) to the 150 PAPER CASSETTE.

RRP2.3 GEAR SECTOR (PL 2.1)**Removal**

- 1) Remove the COVER CST (PL 2.1) from the 150 PAPER CASSETTE.
- 2) Release the lock of the LOCK EXTENSION, and pull out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 2.1) to the HOUSING TOP 150 (PL 2.1), and remove the GEAR PINION.
- 4) While pressing down the lock of the STOPPER GEAR (PL 2.1), release the lock of the LEVER BTM LOCK (PL 2.1) to lift up the PLATE ASSY BTM (PL 2.1).
- 5) Slide the GUIDE ASSY SD L150 (PL 2.1) inward, and remove it from the HOUSING TOP 150 by pressing down the hook of the HOUSING TOP 150.
- 6) Slide the GUIDE ASSY SD R150 (PL 2.1) inward, and remove it from the HOUSING TOP 150 by pressing down the hook of the HOUSING TOP 150.
- 7) Remove the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back, that secure the HOUSING TOP 150 (PL 2.1) to the HOUSING BASE 150 (PL 2.1).
- 8) Release the 4 hooks of the HOUSING TOP 150, and remove the HOUSING TOP 150 and HOUSING EXTENSION 150 (PL 2.1) from the HOUSING BASE 150.
- 9) Remove the 4 screws (gold tapping, 6mm) securing the COVER EXTENSION (PL 2.1) to the HOUSING EXTENSION 150.
- 10) Remove the COVER EXTENSION from the HOUSING EXTENSION 150.
- 11) Remove the RACK SIZE (PL 2.1) (RRP2.2).
- 12) Remove the screw (black with flange, 8mm) securing the GEAR SECTOR.
- 13) Remove the GEAR SECTOR from the HOUSING EXTENSION 150.



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Figure 1. Gear Sector

Replacement

- 1) Install the GEAR SECTOR to the HOUSING EXTENSION 150 (PL 2.1) (Figure 1).
- 2) Secure the GEAR SECTOR using the screw (black with flange, 8mm).
- 3) Install the RACK SIZE 150 (PL 2.1) (RRP2.2).
- 4) Install the COVER EXTENSION (PL 2.1) to the HOUSING EXTENSION 150 using the 4 screws (gold tapping, 6mm).

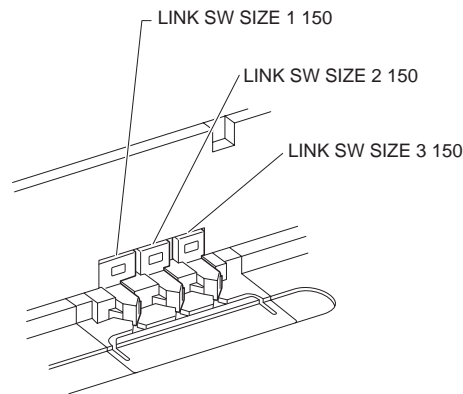
NOTE

When installing, make sure the COVER EXTENSION is inserted under 3 claws of the HOUSING EXTENSION 150.

NOTE

Use 6mm size of fixed screw. If 8mm size of screw is used, HOUSING EXTENSION 150 doesn't operate smoothly and LOCK EXTENSION 150 doesn't operate correctly.

- 5) Install the HOUSING EXTENSION 150 and HOUSING TOP 150 (PL 2.1) to the HOUSING BASE 150 (PL 2.1) while pushing the LINK SW SIZE1-150 (PL 2.1), LINK SW SIZE2-150 (PL 2.1) and LINK SW SIZE3-150 (PL 2.1) of the HOUSING BASE 150 outward as shown (Figure 2).



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Figure 2. Link Size**NOTE**

Be sure to put 2 claws on the top of the PLATE ASSEMBLY BTM under the hooks on the HOUSING TOP 150.

- 6) After assembling the HOUSING TOP 150 to HOUSING BASE 150 using the 4 hooks, secure them using the 2 screws (gold tapping, 8mm) on both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back.

NOTE

After tightening the screws, move the GUIDE ASSEMBLY END 150 back and forth, and make sure that the LINK SW SIZEs operate smoothly.

- 7) While pressing down the hook of the HOUSING TOP 150, install the GUIDE ASSEMBLY SD R150 (PL 2.1) to the HOUSING TOP 150.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD R150 sit correctly in the grooves of the HOUSING TOP 150.

- 8) While pressing down the hook of the HOUSING TOP 150, install the GUIDE ASSEMBLY SD L150 (PL 2.1) to the HOUSING TOP 150.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD L150 sit correctly in the grooves of the HOUSING TOP 150.

- 9) Push the PLATE ASSEMBLY BTM downward to lock.

- 10) With completely opened GUIDE ASSEMBLY SD L150 (PL 2.1) and GUIDE ASSEMBLY SD R150 (PL 2.1), install the GEAR PINION (PL 2.1) to the HOUSING TOP 150.

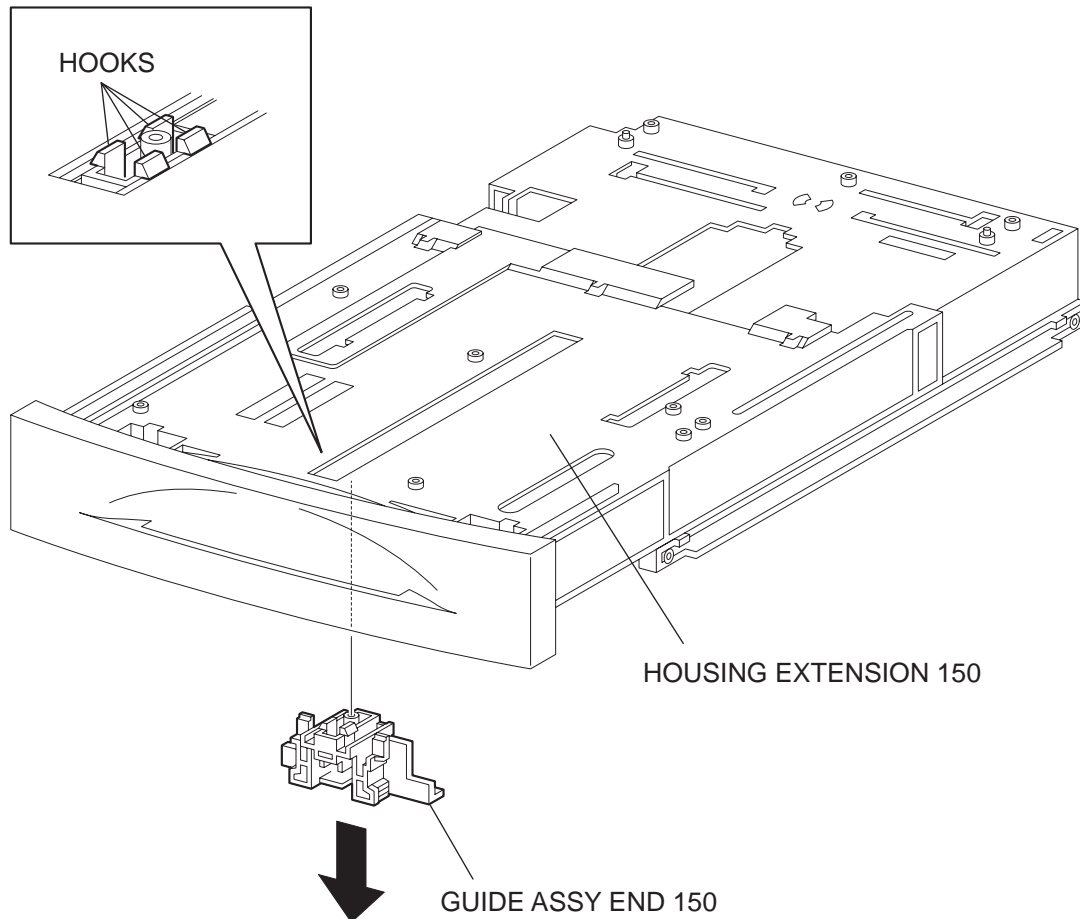
NOTE

When installing the GEAR PINION, make sure the GUIDE ASSEMBLY SD R150 and GUIDE ASSEMBLY SD L150 are completely opened. If not, the side register may be mis-aligned.

- 11) Install the COVER CST (PL 2.1) to the 150 PAPER CASSETTE.

RRP2.4 GUIDE ASSEMBLY END 150 (PL 2.1)**Removal**

- 1) Remove the COVER CST (PL 2.1) from the 150 PAPER CASSETTE.
- 2) Release the lock of the LOCK EXTENSION, and pull out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 2.1) to the HOUSING TOP 150 (PL 2.1), and remove the GEAR PINION.
- 4) While pressing down the lock of the STOPPER GEAR (PL 2.1), release the lock of the LEVER BTM LOCK (PL 2.1) to lift up the PLATE ASSY BTM (PL 2.1) (Figure 1).



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Figure 1. Guide Assembly End

- 5) Slide the GUIDE ASSY SD L150 (PL 2.1) inward, and remove it from the HOUSING TOP 150 by pressing down the hook of the HOUSING TOP 150.
- 6) Slide the GUIDE ASSY SD R150 (PL 2.1) inward, and remove it from the HOUSING TOP 150 by pressing down the hook of the HOUSING TOP 150.
- 7) Remove the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back, that secure the HOUSING TOP 150 (PL 2.1) to the HOUSING BASE 150 (PL 2.1).
- 8) Release the 4 hooks of the HOUSING TOP 150, and remove the HOUSING TOP 150 and HOUSING EXTENSION 150 (PL 2.1) from the HOUSING BASE 150.
- 9) Remove the 4 screws (gold tapping, 6mm) securing the COVER EXTENSION (PL 2.1) to the HOUSING EXTENSION 150.
- 10) Remove the COVER EXTENSION from the HOUSING EXTENSION 150.

- 11) Remove the RACK SIZE (PL 2.1) (RRP2.2).
- 12) Remove the GEAR SECTOR (PL 2.1) (RRP2.3).
- 13) Release the hooks securing the GUIDE ASSY END 150 to the HOUSING EXTENSION 150.

NOTE

Be careful handling the hooks of the GUIDE ASSY END150. They are fragile and could break if given excessive force.

- 14) Remove the GUIDE ASSY END 150 from the HOUSING EXTENSION 150.

Replacement

- 1) Secure the GUIDE ASSEMBLY END 150 to the HOUSING EXTENSION 150 (PL 2.1) using the 4 hooks (Figure 1).
- 2) Install the GEAR SECTOR (PL 2.1) (RRP2.3)
- 3) Install the RACK SIZE (PL 2.1) (RRP2.2)
- 4) Install the COVER EXTENSION (PL 2.1) to the HOUSING EXTENSION 150 using the 4 screws (gold tapping, 6mm).

NOTE

When installing, make sure the COVER EXTENSION is inserted under 3 claws of the HOUSING EXTENSION 150.

NOTE

Use 6mm size of fixed screw. If 8mm size of screw is used, HOUSING EXTENSION 150 doesn't operate smoothly and LOCK EXTENSION 150 doesn't operate correctly.

- 5) Install the HOUSING EXTENSION 150 and HOUSING TOP 150 (PL 2.1) to the HOUSING BASE 150 (PL 2.1) while pushing the LINK SW SIZE1-150 (PL 2.1), LINK SW SIZE2-150 (PL 2.1) and LINK SW SIZE3-150 (PL 2.1) of the HOUSING BASE 150 outward as shown (Figure 3) (RRP2.2).

NOTE

Be sure to put 2 claws that on the top of the PLATE ASSEMBLY BTM under the hooks on the HOUSING TOP 150.

- 6) After assembling the HOUSING TOP 150 to the HOUSING BASE 150 using the 4 hooks, secure them using the 2 screws (gold tapping, 8mm) on both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back.

NOTE

After tightening the screws, move the GUIDE ASSEMBLY END 150 back and forth, and make sure that the LINK SW SIZEs operate smoothly.

- 7) While pressing down the hook of the HOUSING TOP 150, install the GUIDE ASSEMBLY SD R150 (PL 2.1) to the HOUSING TOP 150.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD R150 sit correctly in the grooves of the HOUSING TOP 150.

- 8) While pressing down the hook of the HOUSING TOP 150, install the GUIDE ASSEMBLY SD L150 (PL 2.1) to the HOUSING TOP 150.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD L150 sit correctly in the grooves of the HOUSING TOP 150.

- 9) Push the PLATE ASSEMBLY BTM downward to lock.
- 10) With completely opened GUIDE ASSEMBLY SD L150 (PL 2.1) and GUIDE ASSEMBLY SD R150 (PL 2.1) to the both sides, install the GEAR PINION (PL 2.1) to the HOUSING TOP 150.

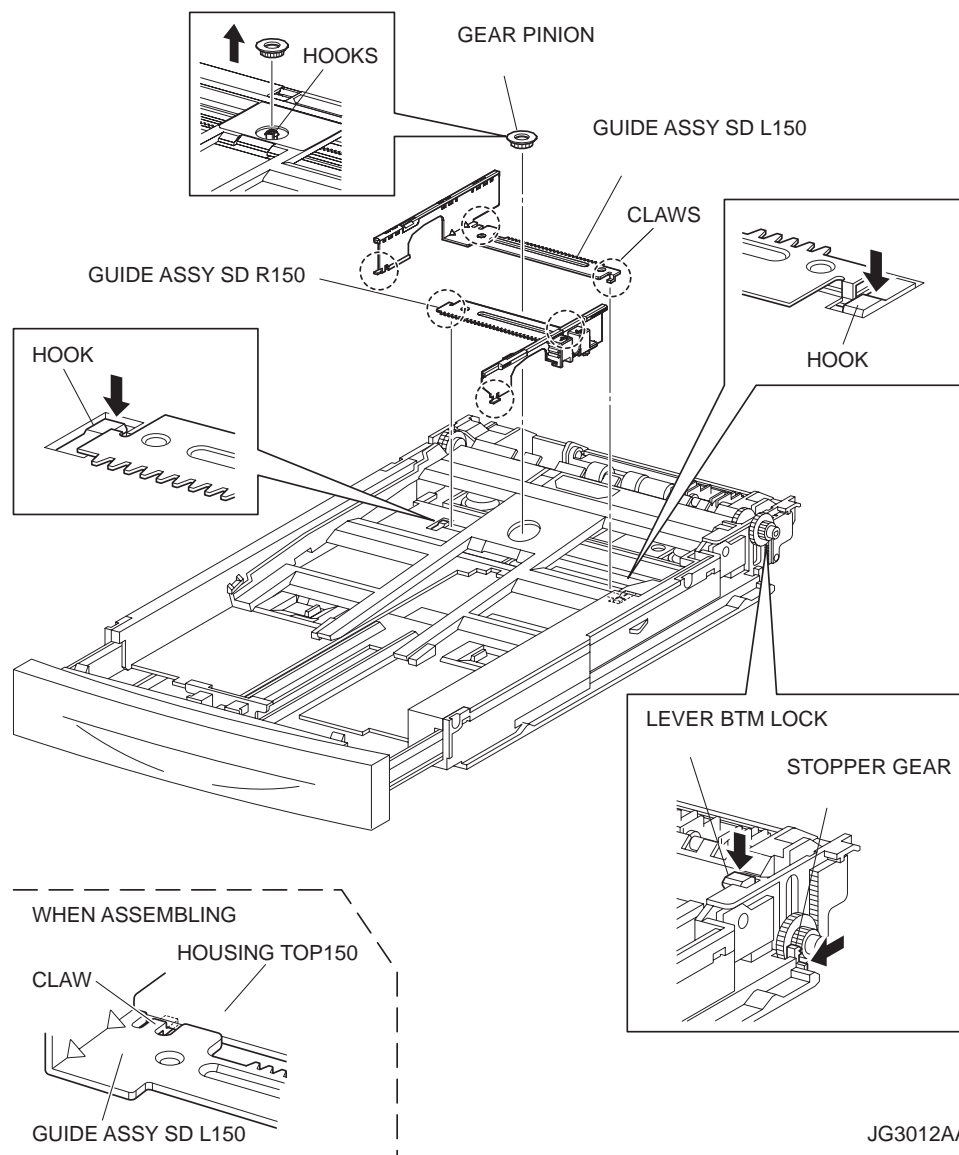
NOTE

When installing the GEAR PINION, make sure the GUIDE ASSEMBLY SD R150 and GUIDE ASSEMBLY SD L150 are completely opened. If not, the side register may be misaligned.

- 11) Install the COVER CST (PL 2.1) to the 150 PAPER CASSETTE.

RRP2.5 PLATE ASSEMBLY BTM (PL 2.1)**Removal**

- 1) Remove the COVER CST (PL 2.1) from the 150 PAPER CASSETTE (Figure 1).
- 2) Release the lock of the LOCK EXTENSION, and pull out the cassette extension as far as it will go (Figure 1).
- 3) Release the hooks securing the GEAR PINION (PL 2.1) to the HOUSING TOP 150 (PL 2.1), and remove the GEAR PINION.
- 4) While pressing down the lock of the STOPPER GEAR (PL 2.1), release the lock of the LEVER BTM LOCK (PL 2.1) to lift up the PLATE ASSEMBLY BTM (PL 2.1).
- 5) Slide the GUIDE ASSEMBLY SD L150 (PL 2.1) inward, and remove it from the HOUSING TOP 150 by pressing down the hook of the HOUSING TOP 150.
- 6) Slide the GUIDE ASSEMBLY SD R150 (PL 2.1) inward, and remove it from the HOUSING TOP 150 by pressing down the hook of the HOUSING TOP 150.

**Figure 1. Plate Assembly BTM**

NOTE

In the following steps, the GEAR PB L (PL 2.1), GEAR BTM DMP ONEWAY (PL 2.1) and GEAR BTM LOCK ONEWAY (PL 2.1) will be detached. Be careful not to lose these gears (Figure 2).

- 7) Release the hook of the GEAR PB R (PL 2.1), and remove it from the SHAFT PB (PL 2.1) (Figure 2).

NOTE

It is hard to remove GEAR PB R. When removing it, be careful not to break it.

- 8) Disengage the GEAR PB L from the PLATE GEAR LOCK 150 while bending the HOUSING BASE 150 in the direction of the arrows. Remove the PLATE ASSEMBLY BTM together with the SHAFT PB, GEAR PB L, GEAR BTM DMP ONEWAY, and GEAR BTM LOCK ONEWAY from the HOUSING TOP 150.
- 9) Pull out the SHAFT PB from the PLATE ASSEMBLY BTM, and remove the GEAR PB L, GEAR BTM DMP ONEWAY and GEAR BTM LOCK ONEWAY.

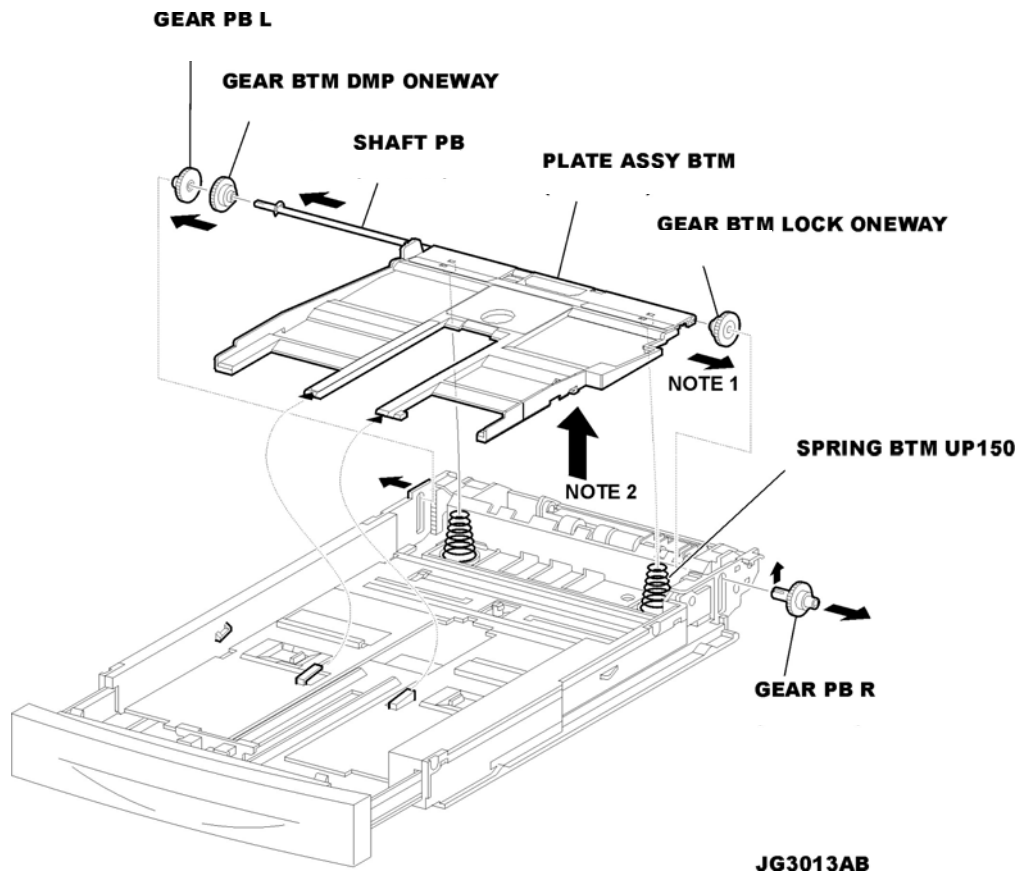
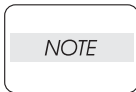


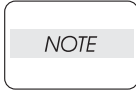
Figure 2. Plate Assembly

Replacement

- 1) Insert the SHAFT PB (PL 2.1) into the PLATE ASSEMBLY BTM, and insert the GEAR BTM DMP ONEWAY (PL 2.1), GEAR PB L (PL 2.1), and GEAR BTM LOCK ONEWAY (PL 2.1) to the SHAFT PB (Figure 2).
- 2) While disengaging the GEAR PB L, install the assembled PLATE ASSEMBLY BTM to the HOUSING TOP 150 (PL 2.1).

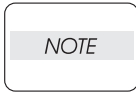


When installing the PLATE ASSEMBLY BTM, be sure to put 2 SPRING BTM UP 150s (PL 2.1) into the bosses on the back of the PLATE ASSEMBLY BTM (NOTE 1) (Figure 2).

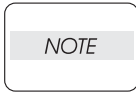


Be sure to put 2 claws on the top of the PLATE ASSEMBLY BTM under the hooks on the HOUSING TOP 150.(NOTE 2) (Figure 2).

- 3) Install the GEAR PB R (PL 2.1) to the SHAFT PB, and secure it with the hook.

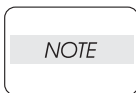


Be sure to install the hook of the GEAR PB R into the groove of the SHAFT PB.



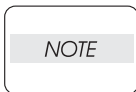
When installing the GEAR PB R, be sure to lift up the PLATE ASSEMBLY BTM. If the PLATE ASSEMBLY BTM is inclined, a paper skew or jam may occur. Check after the installation is completed.

- 4) While pressing down the hook of the HOUSING TOP 150, install the GUIDE ASSEMBLY SD R150 (PL 2.1) to the HOUSING TOP 150.



After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD R150 sit correctly in the grooves of the HOUSING TOP 150.

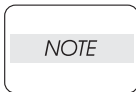
- 5) While pressing down the hook of the HOUSING TOP 150, install the GUIDE ASSEMBLY SD L150 (PL 2.1) to the HOUSING TOP 150



After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD L150 sit correctly in the grooves of the HOUSING TOP 150.

- 6) Push the PLATE ASSEMBLY BTM downward to lock.

- 7) Install the GEAR PINION (PL 2.1) to the HOUSING TOP 150.



When installing the GEAR PINION, make sure the GUIDE ASSEMBLY SD R150 and GUIDE ASSEMBLY SD L150 are completely opened. If not, the side register may be misaligned.

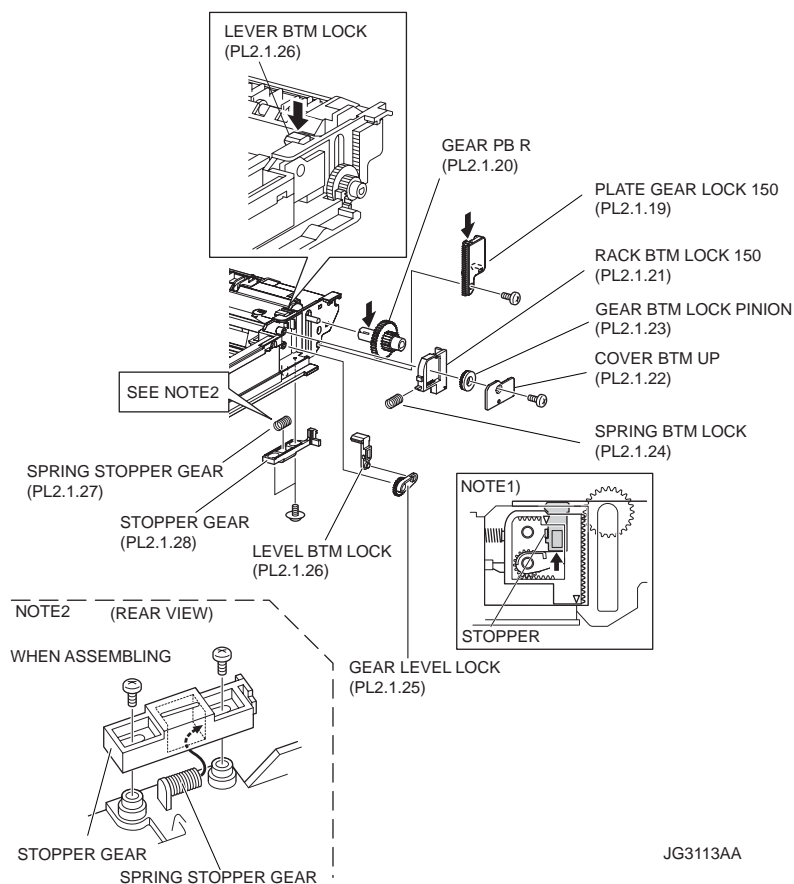
- 8) Install the COVER CST (PL 2.1) to the 150 PAPER CASSETTE.

RRP2.6 GEAR LEVER LOCK (PL 2.1.25), LEVER BTM LOCK (PL 2.1)**Removal**

- 1) Remove the COVER CST (PL 2.1) from the 150 PAPER CASSETTE.
- 2) Release the lock of the LOCK EXTENSION, and pull out the cassette extension as far as it will go.
- 3) While pressing down the lock of the STOPPER GEAR (PL 2.1), release the lock of LEVER BTM LOCK (PL 2.1) to lift up the PLATE ASSEMBLY BTM (PL 2.1) (Figure 1).
- 4) Remove the screw (gold tapping, 8mm) securing the PLATE GEAR LOCK 150 (PL 2.1) at the GEAR PB R (PL 2.1) side (Figure 1).
- 5) Release the hook of the PLATE GEAR LOCK 150, and remove it from the HOUSING BASE 150 (PL 2.1).
- 6) Release the hook of the GEAR PB R, and remove it from the SHAFT PB (PL 2.1).
- 7) Remove the screw (gold tapping, 6mm) securing the COVER BTM UP 150 (PL 2.1), and remove it from the HOUSING BASE 150.
- 8) Remove the GEAR BTM LOCK PINION (PL 2.1) from the HOUSING BASE 150.
- 9) Remove the RACK BTM LOCK 150 (PL 2.1) together with the SPRING BTM LOCK (PL 2.1) from the HOUSING BASE 150.
- 10) Remove the GEAR LEVER LOCK from the HOUSING BASE 150.
- 11) Remove the 2 screws (gold tapping, 6mm) securing the STOPPER GEAR (PL 2.1), and remove the STOPPER GEAR and SPRING STOPPER GEAR (PL 2.1) from the HOUSING BASE 150.

NOTE

When removing the STOPPER GEAR, be careful not to lose the SPRING STOPPER GEAR.

**Figure 1. Gear Lever Lock**

Replacement**NOTE**

When installing, be sure to lift up the PLATE ASSEMBLY BTM. If the PLATE ASSEMBLY BTM is inclined, a paper skew or jam may occur. Check after the installation is completed.

- 1) Put the SPRING STOPPER GEAR (PL 2.1) into the STOPPER GEAR (PL 2.1), and secure the STOPPER GEAR to the HOUSING BASE 150 (PL 2.1) using the 2 screws (gold tapping, 6mm).

NOTE

When installing the STOPPER GEAR, be careful not to lose the SPRING STOPPER GEAR.

NOTE

Install the STOPPER GEAR so that one end of the SPRING STOPPER GEAR is in contact with the plate located on the back of the HOUSING BASE 150 as shown (NOTE 2) (Figure 1)

- 2) Install the GEAR LEVER LOCK (PL 2.1.25) to the HOUSING BASE 150.
- 3) Install the SPRING BTM LOCK (PL 2.1) to the projection of the RACK BTM LOCK 150 (PL 2.1), and install them to the HOUSING BASE 150.

NOTE

When installing the RACK BTM LOCK 150, be sure to install it with the LEVER BTM LOCK lifted up. After installing, push down the LEVER BTM LOCK and then release, check that the projection of the LEVER BTM LOCK hits the stopper of the HOUSING BASE 150 and the triangle mark is placed above the stopper.

- 4) Install the GEAR BTM LOCK PINION (PL 2.1) to the HOUSING BASE 150, and engage the gear.
- 5) Secure the COVER BTM UP 150 (PL 2.1) to the HOUSING BASE 150 using the screw (gold tapping, 6mm).
- 6) Install the GEAR PB R (PL 2.1) to the SHAFT PB (PL 2.1), and secure it with the hook.

NOTE

Be sure to install the hook of the GEAR PB R into the groove of the SHAFT PB.

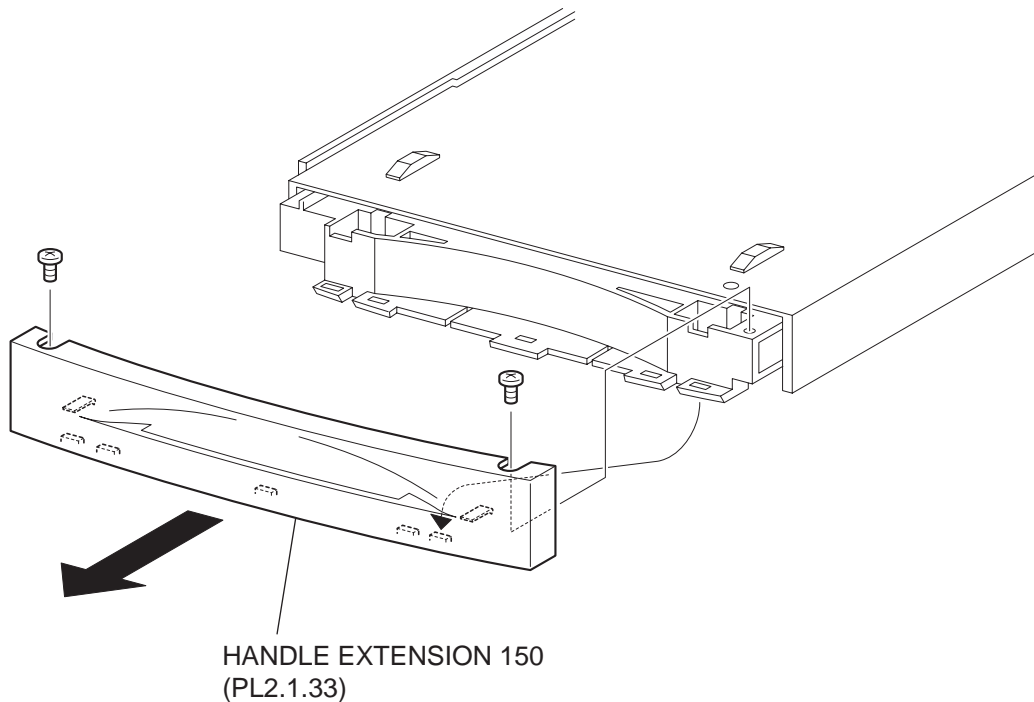
- 7) Install the PLATE GEAR LOCK 150 (PL 2.1) to the HOUSING BASE 150, and secure it with the hook.
- 8) Secure the PLATE GEAR LOCK 150 using the screw (gold tapping, 8mm).
- 9) Push the PLATE ASSEMBLY BTM (PL 2.1) downward to lock.

RRP2.7 HANDLE EXTENSION 150 (PL 2.1)**Removal**

- 1) Remove the COVER CST (PL2.1.1) from the 150 PAPER CASSETTE.
- 2) Remove the 2 screws on the back side of the HANDLE EXTENSION 150 (PL 2.1) (Figure 1).
- 3) Release the 5 hooks at the upper side and the 2 hooks at the lower side of the HANDLE EXTENSION 150 (PL 2.1), then, remove the HANDLE EXTENSION 150 (PL 2.1) from the HOUSING EXTENSION 150 (PL 2.1) (Figure 1).

Replacement

- 1) Put the 5 hooks on the upper side and 2 hooks on the lower side of the HANDLE EXTENSION 150 (PL 2.1) to the HOUSING EXTENSION 150 (PL 2.1).
- 2) Secure the HANDLE EXTENSION 150 (PL 2.1) to the HOUSING EXTENSION 150 (PL 2.1) using the 2 screws.
- 3) Install the COVER CST (PL 2.1) to the 150 PAPER CASSETTE.



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Figure 1. Handle Extension

RRP3. 550 PAPER CASSETTE

RRP3.1 ROLL ASSEMBLY RETARD (PL 3.1)**Removal**

- 1) Pull out the 550 PAPER CASSETTE from the printer.
- 2) Release the hooks securing the HOLDER RETARD (PL 3.1) to the 550 PAPER CASSETTE using a screwdriver (Figure 1).
- 3) Lift up the HOLDER RETARD in the direction of the arrow, and remove it (Figure 1).
- 4) Release the hook securing the ROLL ASSEMBLY RETARD, and pull it out from the SHAFT RETARD (PL 3.1).

NOTE

When removing, do not touch the roller surface of the ROLL ASSEMBLY RETARD.

NOTE

When removing HOLDER RETARD, be careful not to lose SPRING RETARD.

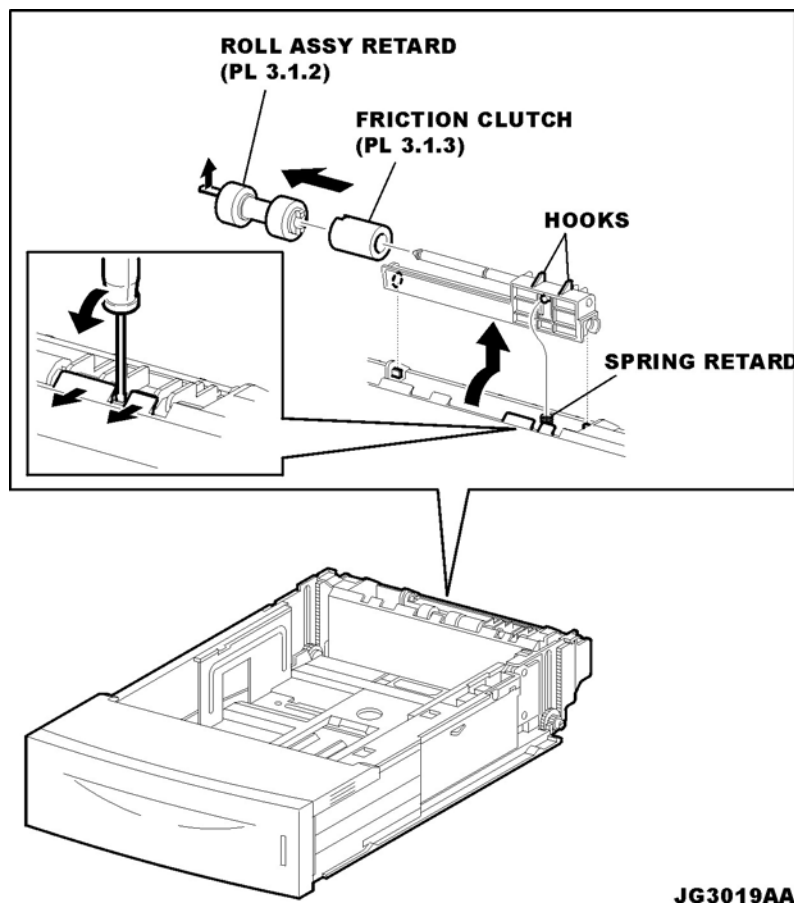


Figure 1. Retard Roll Assembly

NOTE

It is also possible to remove the ROLL ASSEMBLY RETARD by pushing the HOLDER RETARD down (Figure 2).

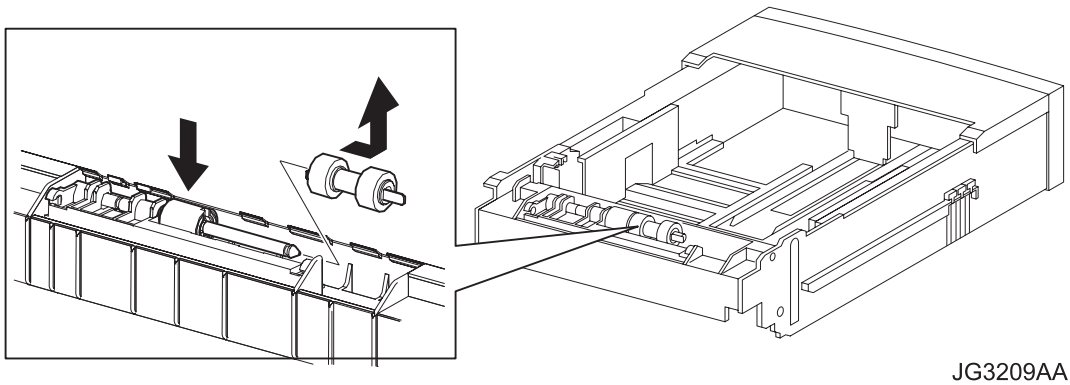


Figure 2. Holder Retard

Replacement

- 1) Install the ROLL ASSEMBLY RETARD to the SHAFT RETARD (PL 12.3), and secure the ROLL ASSEMBLY RETARD with the hook.

NOTE

When installing, do not touch the roller surface of the ROLL ASSEMBLY RETARD.

NOTE

Be sure to install the hook of the ROLL ASSEMBLY RETARD into the groove of the SHAFT RETARD.

- 2) Move the HOLDER RETARD (PL 3.1) in the opposite direction of the arrow, and install it to the 550 PAPER CASSETTE.

NOTE

After installing, make sure the HOLDER RETARD comes back to the former position with the spring force of the SPRING RETARD (PL 12.3), when pushing down the HOLDER RETARD and then release the finger from it.

- 3) Install the 550 PAPER CASSETTE to the printer.

RRP3.2 RACK SIZE (PL 4.1.40)**Removal**

- 1) Remove the COVER CST (PL 12.3) from the 550 PAPER CASSETTE.
- 2) Release the lock of the LOCK EXTENSION, and pull out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 12.3) to the HOUSING TOP 550 (PL 12.3), and remove the GEAR PINION (Figure 1).
- 4) While pressing down the lock of the STOPPER GEAR (PL 12.3), release the lock of the LEVER BTM LOCK (PL 3.1) to lift up the PLATE ASSEMBLY BTM (Figure 1).
- 5) Slide the GUIDE ASSEMBLY SD L550 (PL 12.3) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550 (Figure 1).
- 6) Slide the GUIDE ASSEMBLY SD R550 (PL 12.3) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.

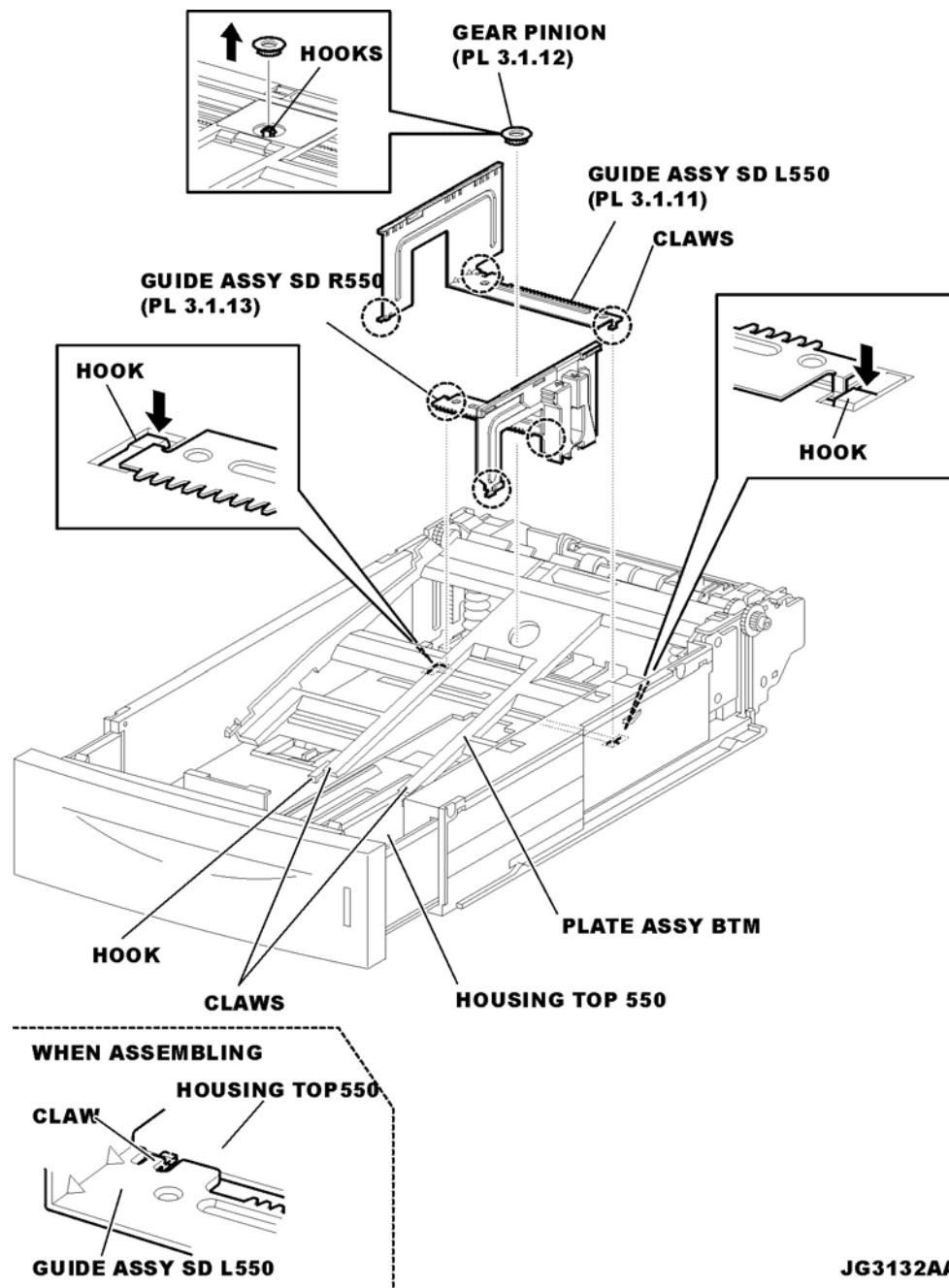


Figure 1. Rack Size

- 7) Remove the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back (Figure 2), that secure the HOUSING TOP 550 to the HOUSING BASE 550 (PL 3.1).
- 8) Release the 4 hooks of the HOUSING TOP 550, and remove the HOUSING TOP 550 together with the HOUSING EXTENSION 550 (PL 3.1), from the HOUSING BASE 550 (Figure 2).
- 9) Remove the 4 screws (gold tapping, 6mm) securing the COVER EXTENSION (PL 3.1) to the HOUSING EXTENSION 550.
- 10) Remove the COVER EXTENSION from the HOUSING EXTENSION 550.

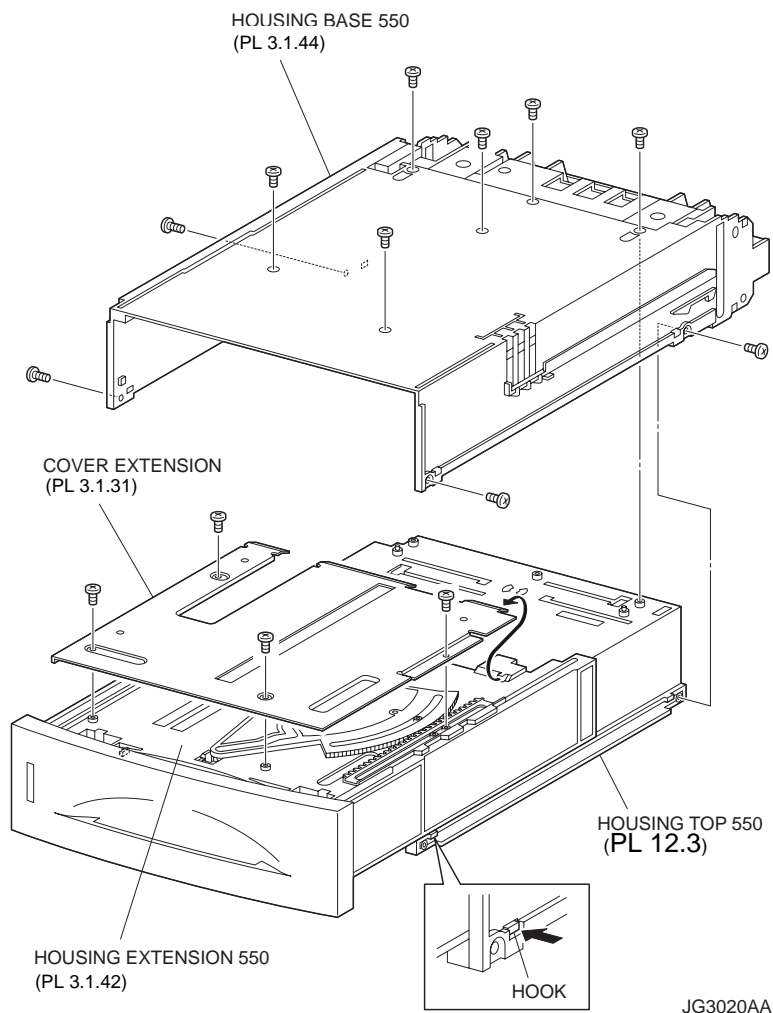


Figure 2. Housing

- 11) Lift the front of the RACK SIZE (PL 3.1) a little, and turn it in the direction of the arrow to remove it from the HOUSING EXTENSION 550 (Figure 3).

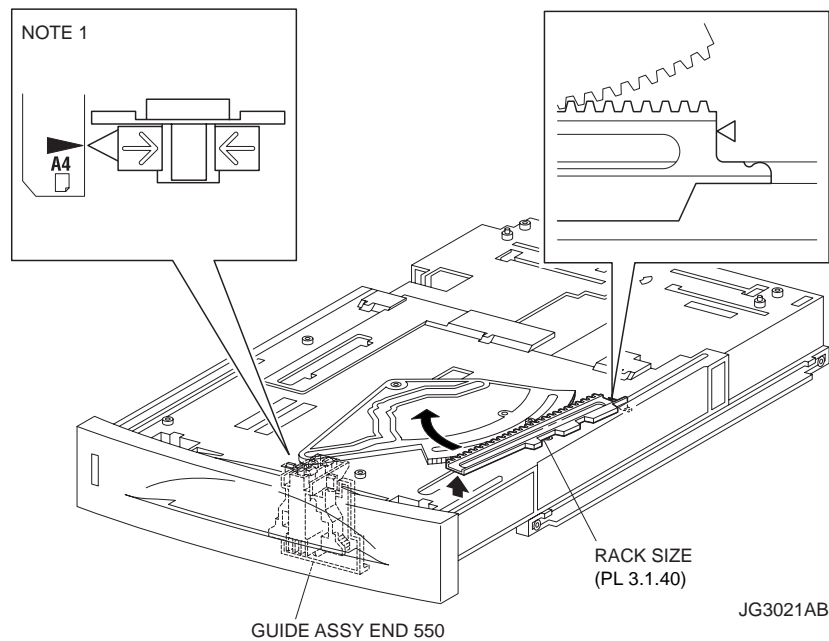


Figure 3. Size Rack

Replacement

- 1) Put the hook on top of the RACK SIZE into the groove of the HOUSING EXTENSION 550 (PL 3.1), and turn it in the opposite direction of the arrow.
- 2) Align the end of the RACK SIZE with the triangle mark printed on the HOUSING EXTENSION 550 (Figure 3), and install the RACK SIZE to the HOUSING EXTENSION 550.

NOTE

When installing the RACK SIZE, be sure to pull out the GUIDE ASSEMBLY END 550 (PL 3.1) as far as it will go (NOTE 1) (Figure 3).

NOTE

Use 6mm size of fixed screw. If 8mm size of screw is used, HOUSING EXTENSION 550 doesn't operate smoothly and LOCK EXTENSION 550 doesn't operate correctly.

- 3) Install the COVER EXTENSION (PL 3.1) to the HOUSING EXTENSION 550 using the 4 screws (gold tapping, 6mm).

NOTE

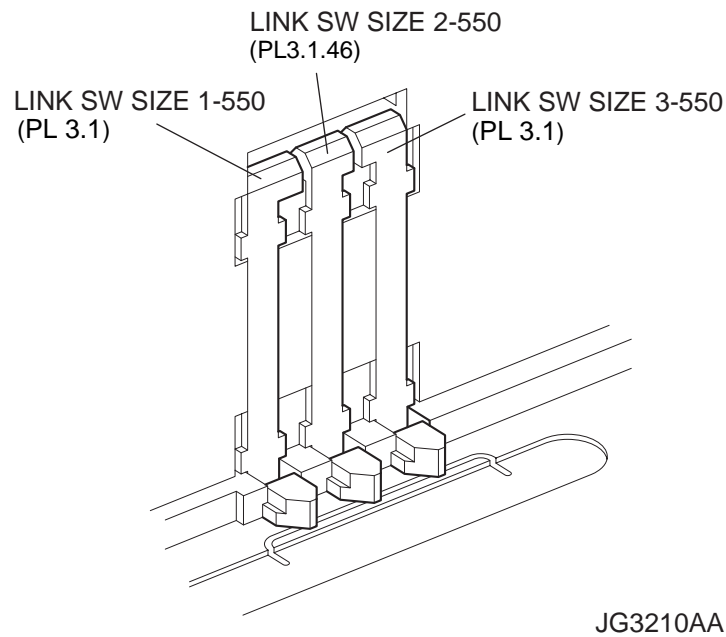
When installing, make sure the COVER EXTENSION is inserted under 3 claws of the HOUSING EXTENSION 550 (NOTE 2) (Figure 2).

- 4) Install the HOUSING EXTENSION 550 and HOUSING TOP 550 (PL 12.3) to the HOUSING BASE 550 while pushing the LINK SW SIZE1-550 (PL 3.1), LINK SW SIZE2-550 (PL 3.1) and LINK SW SIZE3-550 (PL 3.1) of the HOUSING BASE 550 outward (Figure 4).

NOTE

Be sure to put 2 claws that on the top of the PLATE ASSEMBLY BTM under the hooks on the HOUSING TOP 550 (NOTE 3) (Figure 1).

- 5) After assembling the HOUSING TOP 550 to the HOUSING BASE 550 using the 4 hooks, secure them using the 2 screws (gold tapping, 8mm) on both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back.

**Figure 4. Link Size Switches****NOTE**

After tightening the screws, move the GUIDE ASSEMBLY END 550 back and forth, and make sure that the LINK SW SIZEs operate smoothly.

- 6) Insert the link lever of the GUIDE INDICATOR 1 (PL 3.1) into the hole of the PLATE ASSEMBLY BTM.
- 7) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSEMBLY SD R550 (PL 12.3) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD R550 sit correctly in the grooves of the HOUSING TOP 550 (NOTE4) (Figure 1).

- 8) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSEMBLY SD L550 (PL 12.3) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD L550 sit correctly in the grooves of the HOUSING TOP 550 (NOTE4) (Figure 1).

- 9) Push the PLATE ASSEMBLY BTM downward to lock.
- 10) Completely opened GUIDE ASSEMBLY SD L550 (PL 12.3) and GUIDE ASSEMBLY SD R550 (PL 12.3), install the GEAR PINION (PL 12.3) to the HOUSING TOP 550.

NOTE

When installing the GEAR PINION, make sure the GUIDE ASSEMBLY SD R550 and GUIDE ASSEMBLY SD L550 are completely opened. If not, the side register may be misaligned.

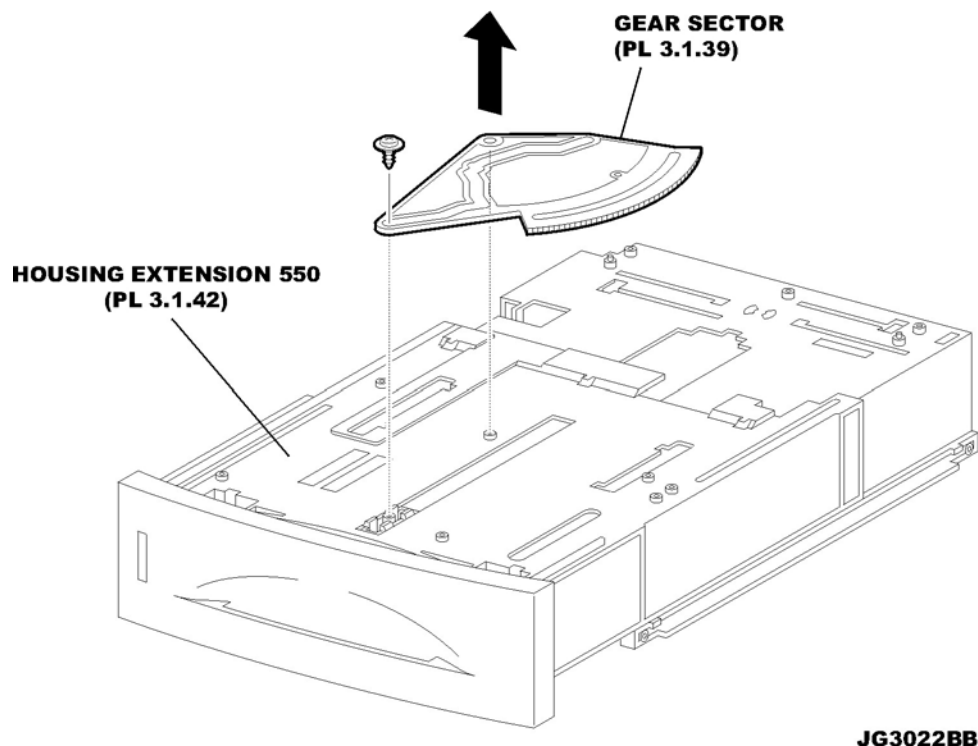
- 11) Install the COVER CST (PL 12.3) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSEMBLY BTM.

RRP3.3 GEAR SECTOR (PL 3.1)**Removal**

- 1) Remove the COVER CST (PL 12.3) from the 550 PAPER CASSETTE.
- 2) Release the lock of the LOCK EXTENSION, and pull out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 12.3) to the HOUSING TOP 550 (PL 12.3), and remove the GEAR PINION.
- 4) While pressing down the lock of the STOPPER GEAR (PL 12.3), release the lock of the LEVER BTM LOCK (PL 3.1) to lift up the PLATE ASSEMBLY BTM. (Figure 4.5)
- 5) Slide the GUIDE ASSEMBLY SD L550 (PL 12.3) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 6) Slide the GUIDE ASSEMBLY SD R550 (PL 12.3) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 7) Remove the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back, that secure the HOUSING TOP 550 to the HOUSING BASE 550 (PL 3.1).
- 8) Release the 4 hooks of the HOUSING TOP 550, and remove the HOUSING TOP 550 together with the HOUSING EXTENSION 550 (PL 3.1) from the HOUSING BASE 550.
- 9) Remove the 4 screws (gold tapping, 6mm) securing the COVER EXTENSION (PL 3.1) to the HOUSING EXTENSION 550.
- 10) Remove the COVER EXTENSION from the HOUSING EXTENSION 550.
- 11) Remove the RACK SIZE (PL 3.1) (RRP3.2)
- 12) Remove the screw (black with flange, 8mm) securing the GEAR SECTOR.
- 13) Remove the GEAR SECTOR from the HOUSING EXTENSION 550 (PL 3.1).

**JG3022BB****Figure 1. Gear Sector**

Replacement

- 1) Install the GEAR SECTOR to the HOUSING EXTENSION 550 (PL 3.1).
- 2) Secure the GEAR SECTOR using the screw (black with flange, 8mm).
- 3) Install the RACK SIZE (PL 3.1) (RRP3.2).
- 4) Install the COVER EXTENSION (PL 3.1) to the HOUSING EXTENSION 550 using the 4 screws (gold tapping, 6mm).

NOTE

When installing, make sure the COVER EXTENSION is inserted under 3 claws of the HOUSING EXTENSION 550.

- 5) Install the HOUSING EXTENSION 550 and HOUSING TOP 550 (PL 12.3) on the HOUSING BASE 550 while pushing the LINK SW SIZE1-550 (PL 3.1), LINK SW SIZE2-550 (PL 3.1) and LINK SW SIZE3-550 (PL 3.1) of the HOUSING BASE 550 outward as shown in figure 4 of procedure (RRP3.2).

NOTE

Be sure to put 2 claws on the top of the PLATE ASSEMBLY BTM under the hooks on the HOUSING TOP 550.

NOTE

Use 6mm size of fixed screw. If 8mm size of screw is used, HOUSING EXTENSION 550 doesn't operate smoothly and LOCK EXTENSION 550 doesn't operate correctly.

- 6) After assembling the HOUSING TOP 550 to the HOUSING BASE 550 using the 4 hooks, secure them using the 2 screws (gold tapping, 8mm) on both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back.

NOTE

After tightening the screws, move the GUIDE ASSEMBLY END 550 back and forth, and make sure that the LINK SW SIZES operate smoothly.

- 7) Insert the link lever of the GUIDE INDICATOR 1 (PL 3.1) into the hole of the PLATE ASSEMBLY BTM (Figure 2).

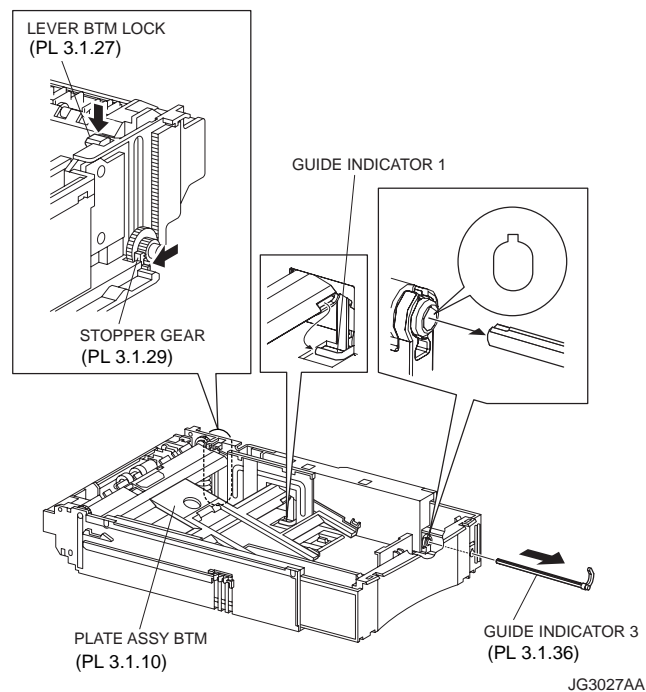


Figure 2 Guide Indicator

- 8) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSEMBLY SD R550 (PL 12.3) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD R550 sit correctly in the grooves of the HOUSING TOP 550.

- 9) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSEMBLY SD L550 (PL 12.3) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD L550 sit correctly in the grooves of the HOUSING TOP 550.

- 10) Push the PLATE ASSEMBLY BTM downward to lock.

- 11) Completely opened GUIDE ASSEMBLY SD L550 (PL 12.3) and GUIDE ASSEMBLY SD R550 (PL 12.3), install the GEAR PINION (PL 12.3) to the HOUSING TOP 550.

NOTE

When installing the GEAR PINION, make sure the GUIDE ASSEMBLY SD R550 and GUIDE ASSEMBLY SD L550 are completely opened. If not, the side register may be misaligned.

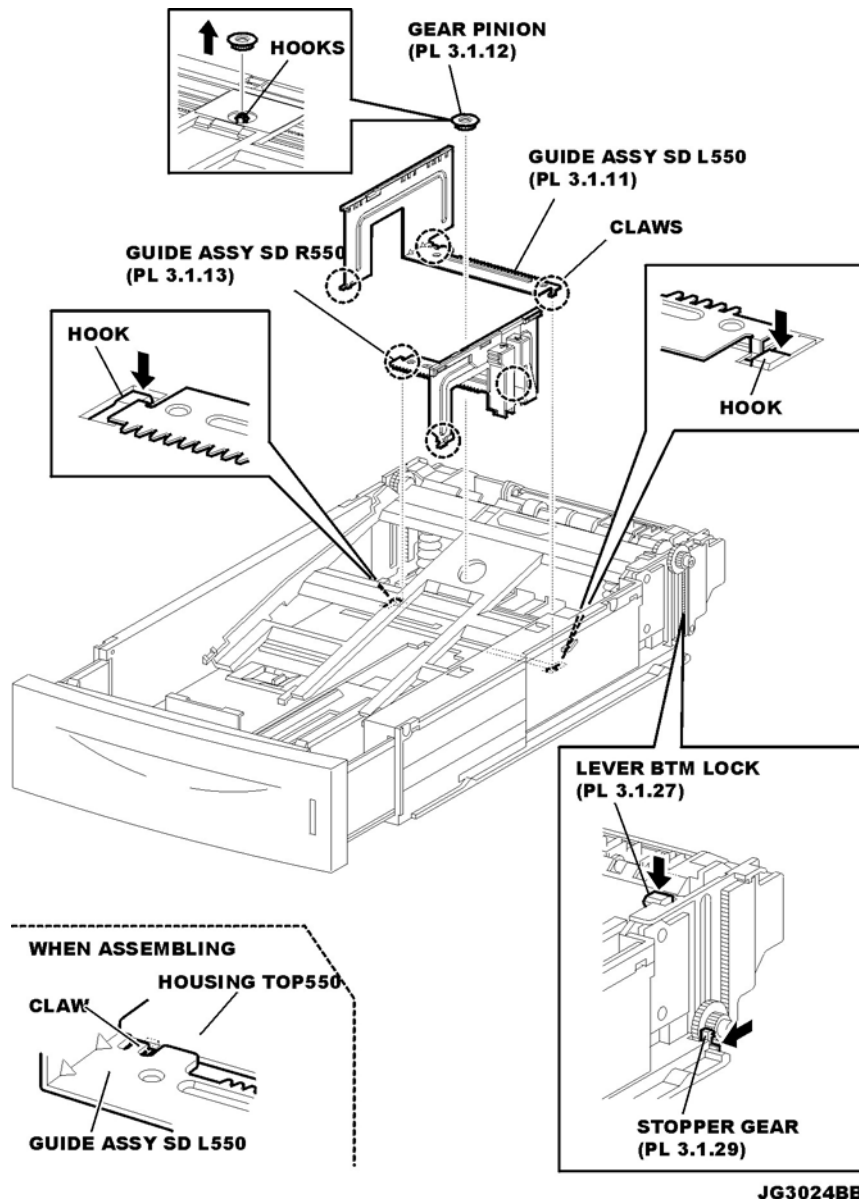
- 12) Install the COVER CST (PL 12.3) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSEMBLY BTM.

RRP3.4 GUIDE ASSEMBLY END 550 (PL 3.1)**Removal**

- 1) Remove the COVER CST (PL 12.3) from the 550 PAPER CASSETTE.
- 2) Release the lock of the LOCK EXTENSION, and pull out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 12.3) to the HOUSING TOP 550 (PL 12.3), and remove the GEAR PINION.
- 4) While pressing down the lock of the STOPPER GEAR (PL 12.3), release the lock of the LEVER BTM LOCK (PL 3.1) to lift up the PLATE ASSEMBLY BTM (Figure 1).

**Figure 1. Plate Assembly BTM**

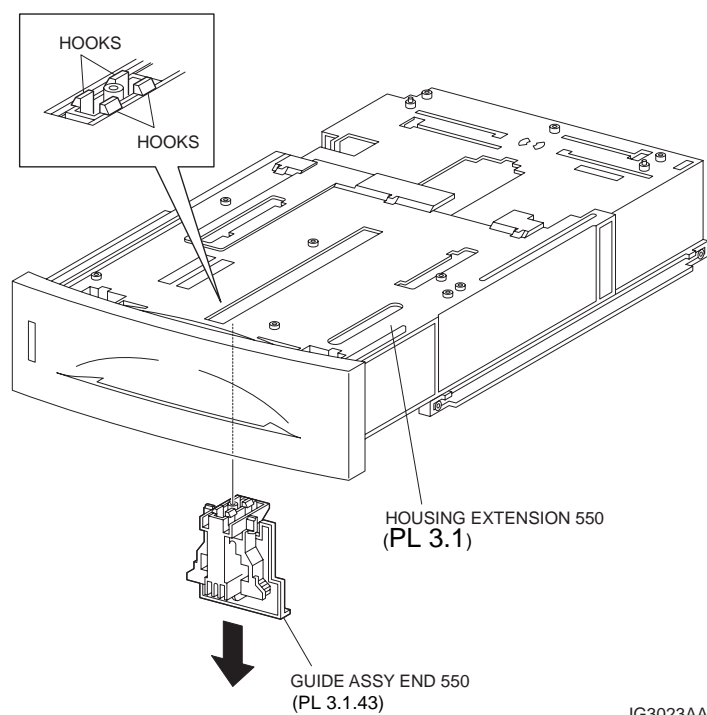
- 5) Slide the GUIDE ASSEMBLY SD L550 (PL 12.3) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 6) Slide the GUIDE ASSEMBLY SD R550 (PL 12.3) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 7) Remove the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back, that secure the HOUSING TOP 550 to the HOUSING BASE 550 (PL 3.1).

- 8) Release the 4 hooks of the HOUSING TOP 550, and remove the HOUSING TOP 550 together with the HOUSING EXTENSION 550 (PL 3.1) from the HOUSING BASE 550.
- 9) Remove the 4 screws (gold tapping, 6mm) securing the COVER EXTENSION (PL 3.1) to the HOUSING EXTENSION 550.
- 10) Remove the COVER EXTENSION from the HOUSING EXTENSION 550.
- 11) Remove the RACK SIZE (PL 3.1) (RRP3.2)
- 12) Remove the GEAR SECTOR (PL 3.1) (RRP3.3).
- 13) Release the hooks securing the GUIDE ASSEMBLY END 550 to the HOUSING EXTENSION 550 (PL 3.1) (Figure 2).

NOTE

Be careful handling the hooks of the GUIDE ASSEMBLY END 550. They are fragile and could break if given excessive force.

- 14) Remove the GUIDE ASSEMBLY END 550 from the HOUSING EXTENSION 550.



JG3023AA

Figure 2. Guide Assembly End 550

Replacement

- 1) Secure the GUIDE ASSEMBLY END 550 to the HOUSING EXTENSION 550 (PL 3.1) using the 4 hooks.
- 2) Install the GEAR SECTOR (PL 3.1) (RRP3.3)
- 3) Install the RACK SIZE (PL 3.1) (RRP3.2)
- 4) Install the COVER EXTENSION (PL 3.1) to the HOUSING EXTENSION 550 using the four screws (gold tapping, 6mm).

NOTE

When installing, make sure the COVER EXTENSION is inserted under 3 claws of the HOUSING EXTENSION 550.

NOTE

Use 6mm size of fixed screw. If 8mm size of screw is used, HOUSING EXTENSION 550 doesn't operate smoothly and LOCK EXTENSION 550 doesn't operate correctly.

- 5) Install the HOUSING EXTENSION 550 and HOUSING TOP 550 (PL 12.3) to the HOUSING BASE 550 while pushing the LINK SW SIZE1-550 (PL 3.1), LINK SW SIZE2-550 (PL 3.1) and LINK SW SIZE3-550 (PL 3.1) of the HOUSING BASE 550 outward (RRP3.2).

NOTE

Be sure to put 2 claws on the top of the PLATE ASSEMBLY BTM under the hooks on the HOUSING TOP 550.

- 6) After assembling the HOUSING TOP 550 to the HOUSING BASE 550 using the four hooks, secure them using the two screws (gold tapping, 8mm) on both right and left sides, as well as the six screws (gold tapping, 8mm) on the back.

NOTE

After tightening the screws, move the GUIDE ASSEMBLY END 550 back and forth, and make sure that the LINK SW SIZEs operate smoothly.

- 7) Insert the link lever of the GUIDE INDICATOR 1 (PL 3.1) into the hole of the PLATE ASSEMBLY BTM.
- 8) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSEMBLY SD R550 (PL 12.3) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD R550 sit correctly in the grooves of the HOUSING TOP 550.

- 9) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSEMBLY SD L550 (PL 12.3) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD L550 sit correctly in the grooves of the HOUSING TOP 550.

- 10) Push the PLATE ASSEMBLY BTM downward to lock.
- 11) Completely opened GUIDE ASSEMBLY SD L550 (PL 12.3) and GUIDE ASSEMBLY SD R550 (PL 12.3), install the GEAR PINION (PL 12.3) to the HOUSING TOP 550.

NOTE

When installing the GEAR PINION, make sure the GUIDE ASSEMBLY SD R550 and GUIDE ASSEMBLY SD L550 are completely opened. If not, the side register may be misaligned.

- 12) Install the COVER CST (PL 12.3) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSEMBLY BTM.

RRP3.5 PLATE ASSEMBLY BTM**Removal**

- 1) Remove the COVER CST (PL 12.3) from the 550 PAPER CASSETTE.
- 2) Release the lock of the LOCK EXTENSION, and pull out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 12.3) to the HOUSING TOP 550 (PL 12.3), and remove the GEAR PINION (Figure 1).
- 4) While pressing down the lock of the STOPPER GEAR (PL 12.3), release the lock of the LEVER BTM LOCK (PL 3.1) to lift up the PLATE ASSEMBLY BTM (Figure 1).
- 5) Slide the GUIDE ASSEMBLY SD L550 (PL 12.3) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 6) Slide the GUIDE ASSEMBLY SD R550 (PL 12.3) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550

NOTE

In the following steps, the GEAR PB L (PL 3.1), GEAR BTM DMP ONEWAY (PL 3.1) and GEAR BTM LOCK ONEWAY (PL 3.1) will be detached (Figure 2). Be careful not to lose these gears.

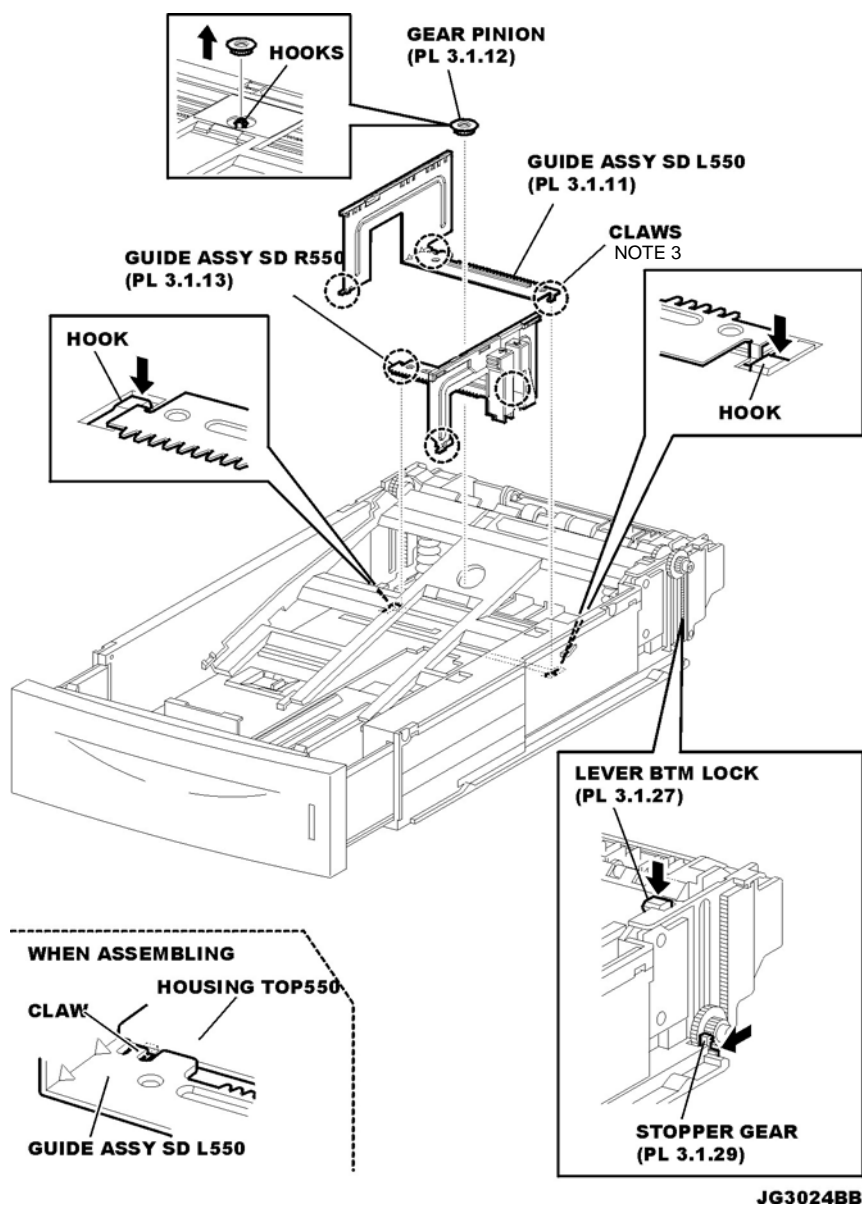


Figure 1. Plate Assembly BTM

- 7) Release the hook of the GEAR PB R (PL 3.1), and remove the GEAR PB R from the SHAFT PB (PL 3.1) (Figure 2).

NOTE

It is hard to remove GEAR PB R. When removing it, be careful not to break it (Figure 2).

- 8) Disengage the GEAR PB L from the PLATE GEAR LOCK 550 while bending the HOUSING BASE 550 in the direction of the arrows. Remove the PLATE ASSEMBLY BTM together with the SHAFT PB, GEAR PB L, GEAR BTM DMP ONEWAY, and GEAR BTM LOCK ONEWAY from the HOUSING TOP 550.
- 9) Pull out the SHAFT PB from the PLATE ASSEMBLY BTM, and remove the GEAR PB L, GEAR BTM DMP ONEWAY and GEAR BTM LOCK ONEWAY.

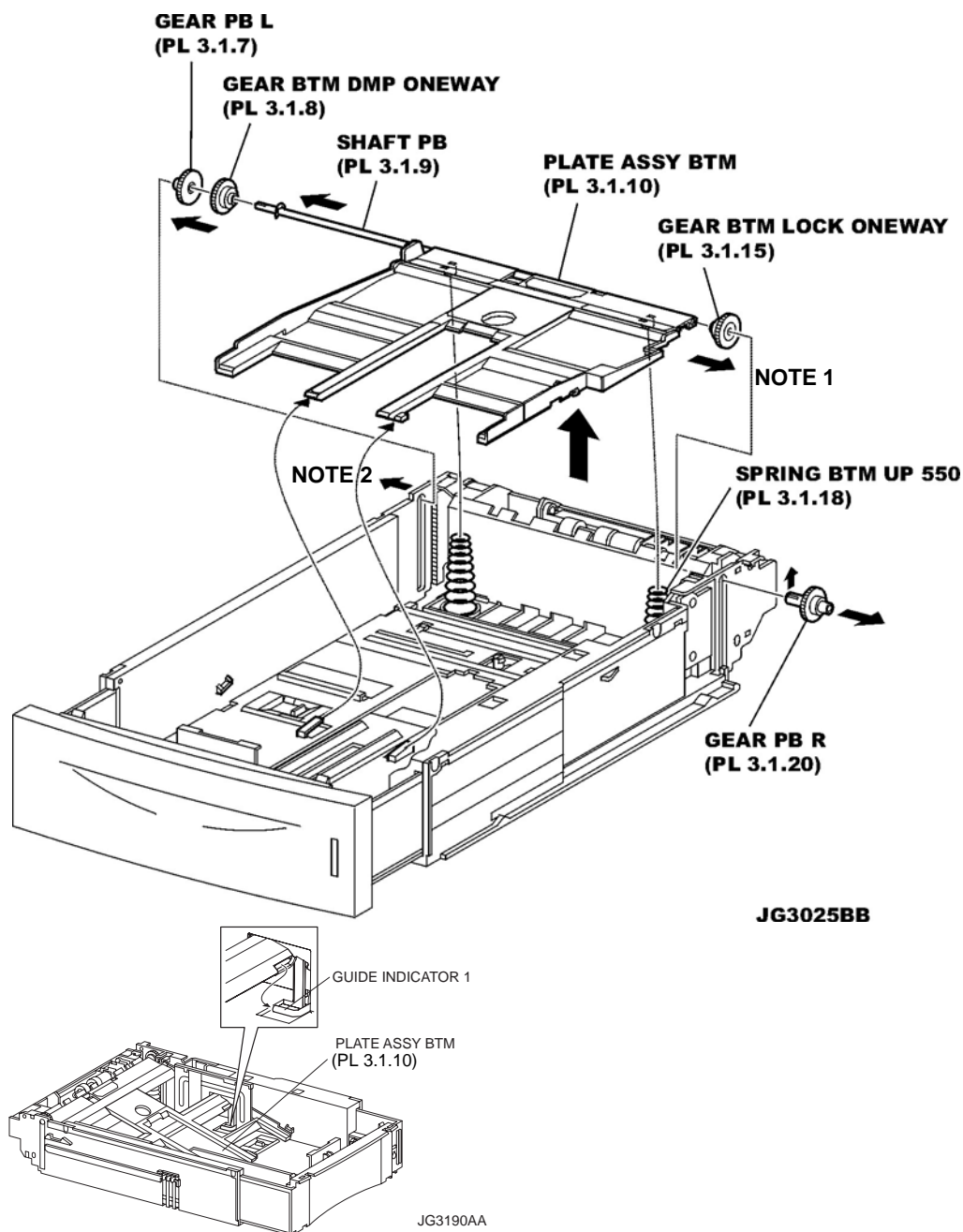


Figure 2 Tray Plate Assembly

Replacement

- 1) Insert the SHAFT PB (PL 3.1) into the PLATE ASSEMBLY BTM, and insert the GEAR BTM DMP ONEWAY, GEAR PB L and GEAR BTM LOCK ONEWAY to the SHAFT PB.
- 2) While disengaging the GEAR PB L, install the assembled PLATE ASSEMBLY BTM to the HOUSING TOP 550 (PL 12.3).

NOTE

When installing the PLATE ASSEMBLY BTM, be sure to put 2 SPRING BTM UP 550s (PL 3.1.18) into the bosses on the back of the PLATE ASSEMBLY BTM (NOTE 1) (Figure 2).

NOTE

Be sure to put 2 claws on the top of the PLATE ASSEMBLY BTM under the hooks on the HOUSING TOP 550.(NOTE 2) (Figure 2).

- 3) Insert the link lever of the GUIDE INDICATOR 1 (PL 3.1) (Figure 2) into the hole of the PLATE ASSEMBLY BTM (Figure 3).

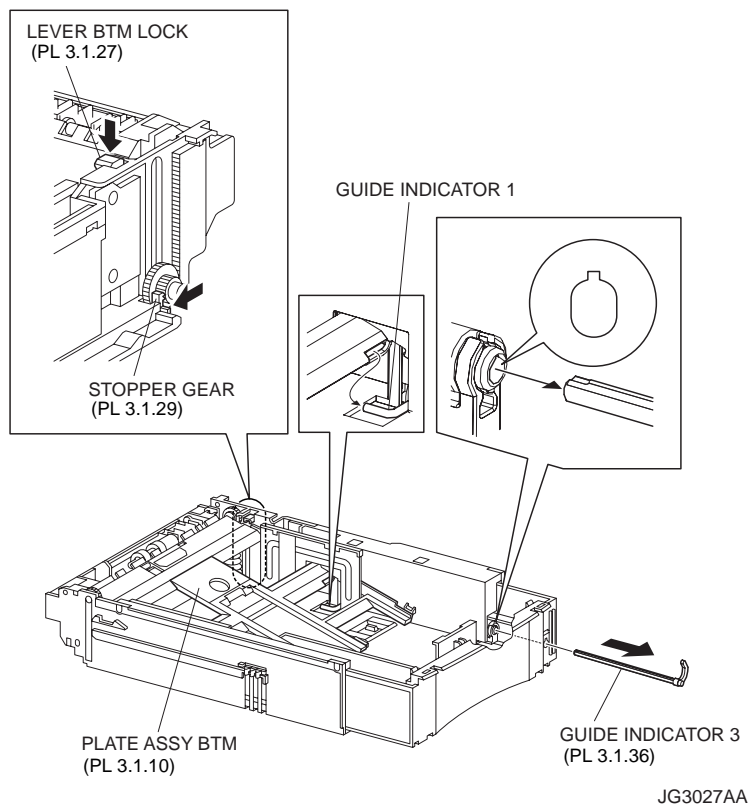


Figure 3. Guide Indicator 3

- 4) Install the GEAR PB R (PL4.1.20) to the SHAFT PB (PL4.1.9), and secure it with the hook.

NOTE

Be sure to install the hook of the GEAR PB R into the groove of the SHAFT PB.

NOTE

When installing the PLATE GEAR LOCK 550, be sure to lift up the PLATE ASSEMBLY BTM. If the PLATE ASSEMBLY BTM is inclined, a paper skew or jam may occur. Check after the installation is completed.

- 5) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSEMBLY SD R550 (PL 12.3) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD R550 sit correctly in the grooves of the HOUSING TOP 550 (NOTE 3) (Figure 1).

- 6) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSEMBLY SD L550 (PL 12.3) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD L550 sit correctly in the grooves of the HOUSING TOP 550.

- 7) Push the PLATE ASSEMBLY BTM downward to lock.
- 8) Install the GEAR PINION (PL 12.3) to the HOUSING TOP 550.

NOTE

When installing the GEAR PINION, make sure the GUIDE ASSEMBLY SD R550 and GUIDE ASSEMBLY SD L550 are completely opened. If not, the side register may be misaligned.

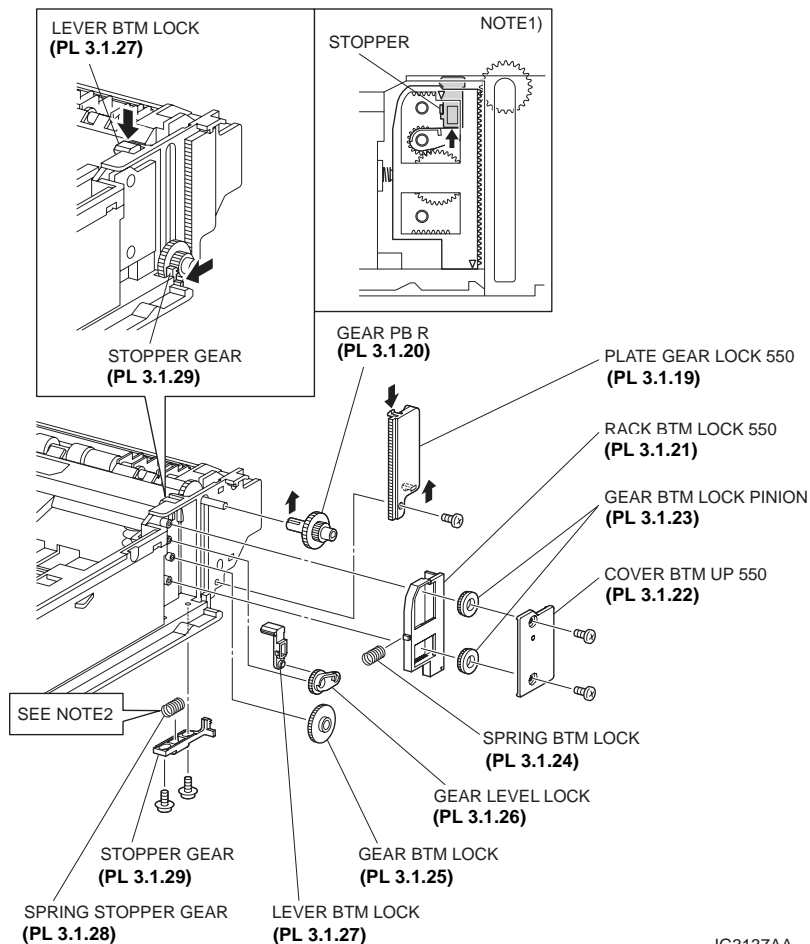
- 9) Install the COVER CST (PL 12.3) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSEMBLY BTM.

RRP3.6 GEAR LEVER LOCK (PL 3.1.26), LEVER BTM LOCK (PL 3.1)**Removal**

- 1) Remove the COVER CST (PL 12.3) from the 550 PAPER CASSETTE.
- 2) Release the lock of the LOCK EXTENSION, and pull out the cassette extension as far as it will go.
- 3) While pressing down the lock of the STOPPER GEAR (PL 12.3), release the lock of LEVER BTM LOCK (PL 3.1) to lift up the PLATE ASSEMBLY BTM (PL 3.1).
- 4) Remove the screw (gold tapping, 8mm) securing the PLATE GEAR LOCK 550 (PL 3.1) at the GEAR PB R (PL 3.1) side.
- 5) Release the hook of the PLATE GEAR LOCK 550, and remove it from the HOUSING BASE 550 (PL 3.1).
- 6) Release the hook of the GEAR PB R, and remove the GEAR PB R from the SHAFT PB (PL 3.1).
- 7) Remove the 2 screws (gold tapping, 6mm) securing the COVER BTM UP 550 (PL 3.1), and remove it from the HOUSING BASE 550.
- 8) Remove 2 GEAR LOCK PINIONS (PL 3.1) from the HOUSING BASE 550 (Figure 1).
- 9) Remove the RACK BTM LOCK 550 (PL 3.1) together with the SPRING BTM LOCK (PL 3.1) from the HOUSING BASE 550 (Figure 1).

**Figure 1. Gear Lever & Lever BTM Lock**

- 10) Remove the GEAR BTM LOCK (PL 3.1) from the HOUSING BASE 550.
- 11) Remove the GEAR LEVER LOCK from the HOUSING BASE 550.
- 12) Remove the 2 screws (gold tapping, 6mm) securing the STOPPER GEAR (PL 12.3), and remove the STOPPER GEAR and SPRING STOPPER GEAR (PL 3.1) from the HOUSING BASE 550.

NOTE

When removing the STOPPER GEAR, be careful not to lose the SPRING STOPPER GEAR.

Replacement**NOTE**

When installing, be sure to lift up the PLATE ASSEMBLY BTM. If the PLATE ASSEMBLY BTM is inclined, a paper skew or jam may occur. Check after the installation is completed.

- 1) Put the SPRING STOPPER GEAR (PL 3.1) into the STOPPER GEAR (PL 12.3), and secure the STOPPER GEAR to the HOUSING BASE 550 (PL 3.1) using the 2 screws (gold tapping, 6mm).

NOTE

When installing the STOPPER GEAR, be careful not to lose the SPRING STOPPER GEAR.

NOTE

Install the STOPPER GEAR so that one end of the SPRING STOPPER GEAR is in contact with the plate located on the back of the HOUSING BASE 550 as shown in NOTE 2 (Figure 2).

- 2) Install the GEAR LEVER LOCK to the HOUSING BASE 550.
- 3) Install the GEAR BTM LOCK (PL 3.1) to the HOUSING BASE 550.
- 4) Install the SPRING BTM LOCK (PL 3.1) to the projection of the RACK BTM LOCK 550 (PL 3.1), and install them to the HOUSING BASE 550.

NOTE

When installing the RACK BTM LOCK 550, be sure to install it with the LEVER BTM LOCK lifted up. After installing, push down the LEVER BTM LOCK and then release the finger from it, check that the projection of the LEVER BTM LOCK is hit the stopper of the HOUSING BASE 550 and the triangle mark is placed above the stopper.

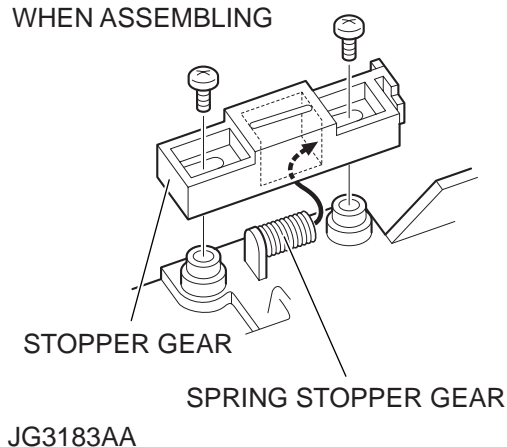
- 5) Install 2 GEAR LOCK PINIONS (PL 3.1) to the HOUSING BASE 550, and engage the gear.

NOTE

Install the lower GEAR BTM PINION after installing the upper GEAR BTM LOCK PINION. When installing the lower GEAR BTM PINION, press RACK BTM LOCK 550 in the direction of arrow until it bumps into the edge (NOTE 1) (Figure 1).

NOTE2 (REAR VIEW)

WHEN ASSEMBLING

**Figure 2. Stopper Gear**

- 6) Secure the COVER BTM UP 550 (PL 3.1) to the HOUSING BASE 550 using the screw (gold tapping, 6mm).
- 7) Install the GEAR PB R (PL 3.1) to the SHAFT PB (PL 3.1), and secure it with the hook.

NOTE

Be sure to install the hook of the GEAR PB R into the groove of the SHAFT PB.

- 8) Install the PLATE GEAR LOCK 550 (PL 3.1) to the HOUSING BASE 550, and secure it with the hook.
- 9) Secure the PLATE GEAR LOCK 550 using the screw (gold tapping, 8mm).
- 10) Push the PLATE ASSEMBLY BTM (PL 3.1) downward to lock.

NOTE

Confirm that there is no space between RACK BTM LOCK 550 and HOUSING BASE 550 when pressing the center of RACK BTM LOCK 550 against HOUSING BASE 550 (Figure 3).

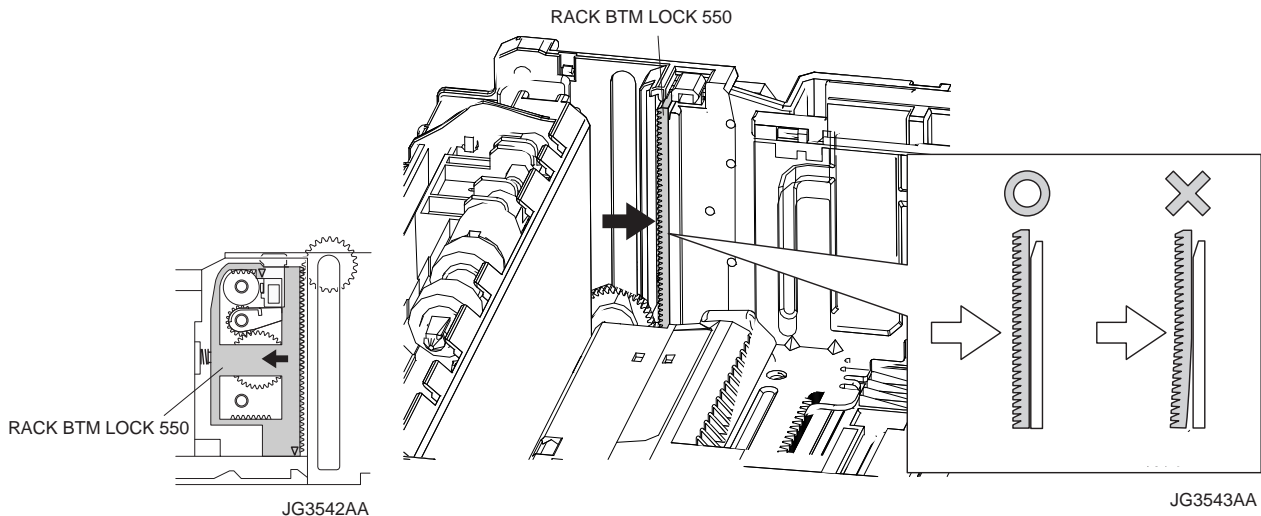
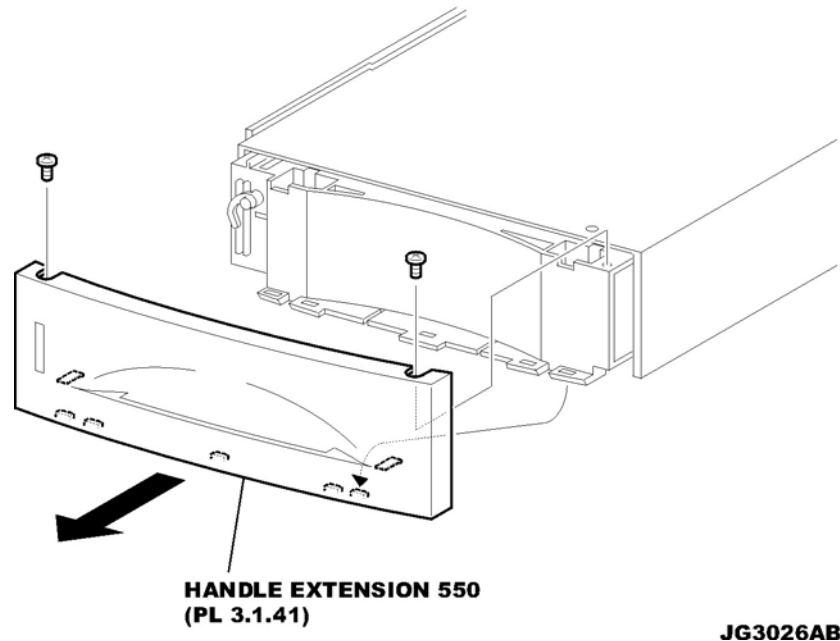


Figure 3. Rack BTM Lock 550

RRP3.7 HANDLE EXTENSION 550 (PL 3.1)**Removal**

- 1) Remove the COVER CST (PL 12.3) from the 550 PAPER CASSETTE.
- 2) Remove the 2 screws on the back side of the HANDLE EXTENSION 550.
- 3) Release the 5 hooks at the upper side and 2 hooks at the lower side of the HANDLE EXTENSION 550, then, remove the HANDLE EXTENSION 550 from the HOUSING EXTENSION 550 (PL 3.1) (Figure 1).

**Figure 1. Handle Extension****NOTE**

When removing the HANDLE EXTENSION 550, the LOW INDICATOR (PL 3.1) and LOW IND FRONT (PL 3.1) will be detached. Be careful not to lose them.

Replacement

- 1) Install the LOW INDICATOR (PL 3.1) and LOW IND FRONT (PL 3.1) (RRP3.10)
- 2) Put the 5 hooks on the top portion and 2 hooks on the lower side of the HANDLE EXTENSION 550 to the HOUSING EXTENSION 550 (PL 3.1).
- 3) Secure the HANDLE EXTENSION 550 (PL 3.1) to the HOUSING EXTENSION 550 using the 2 screws (Figure 1).
- 4) Install the COVER CST (PL 12.3) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSEMBLY BTM.

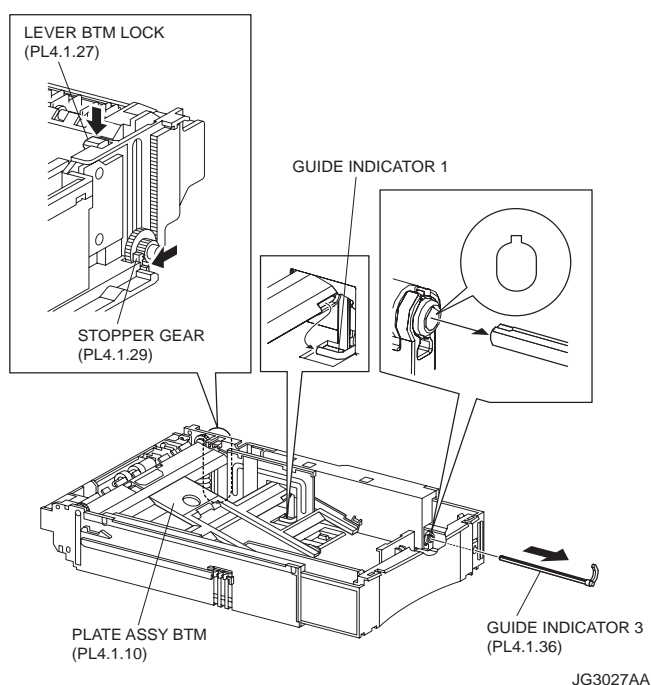
RRP3.8 GUIDE INDICATOR 3 (PL 3.1.36)**Removal**

- 1) Remove the COVER CST (PL 12.3) from the 550 PAPER CASSETTE.
- 2) Remove the HANDLE EXTENSION 550 (PL 3.1) (RRP3.7).

NOTE

When removing the HANDLE EXTENSION 550, the LOW INDICATOR (PL 3.1) and LOW IND FRONT (PL 3.1) will be detached. Be careful not to lose them.

- 3) While pressing down the lock of the STOPPER GEAR (PL 12.3), release the lock of the LEVER BTM LOCK (PL 3.1) to lift up the PLATE ASSEMBLY BTM (PL 3.1).
- 4) Remove the link lever of the GUIDE INDICATOR 1 (PL 3.1) from the hole of the PLATE ASSEMBLY BTM (Figure 1).
- 5) While pressing the link lever down to the bottom side of the 550 PAPER CASSETTE, slowly but firmly pull the GUIDE INDICATOR 3 out from the front side of the HOUSING EXTENSION 550 (PL 3.1).

**Figure 1. Guide Indicator****Replacement**

- 1) While pressing the link lever down to the bottom side of the 550 PAPER CASSETTE, insert the GUIDE INDICATOR 3 to the HOUSING EXTENSION 550 (PL 3.1) from the front side.

NOTE

Be sure to align the groove of the GUIDE INDICATOR 1 and the projection of the GUIDE INDICATOR 3.

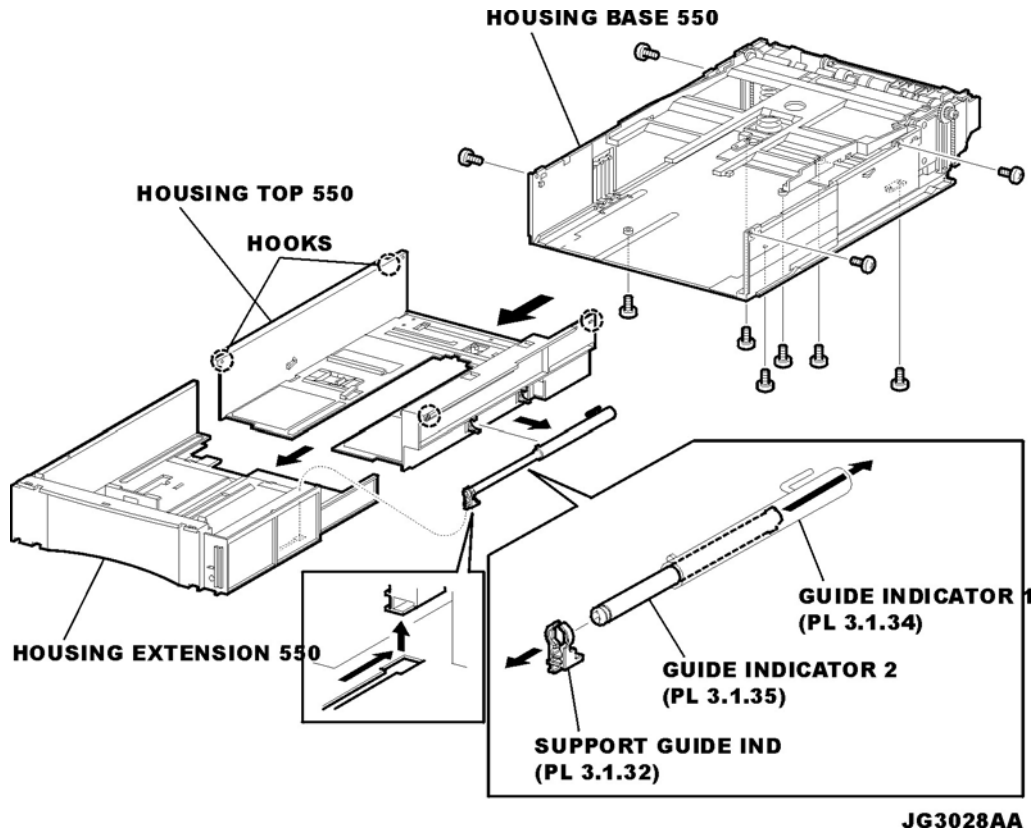
- 2) Insert the link lever of the GUIDE INDICATOR 1 (PL 3.1) to the hole of the PLATE ASSEMBLY BTM.
- 3) Install the LOW INDICATOR (PL 3.1) and LOW IND FRONT (PL 3.1) (RRP3.10).
- 4) Install the HANDLE EXTENSION 550 (PL 3.1) (RRP3.7)
- 5) Install the COVER CST (PL 12.3) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSEMBLY BTM

RRP3.9 GUIDE INDICATOR 2 (PL 3.1.35)**Removal**

- 1) Remove the COVER CST (PL 12.3) from the 550 PAPER CASSETTE.
- 2) Release the lock of the LOCK EXTENSION, and pull out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 12.3) to the HOUSING TOP 550 (PL 12.3), and remove the GEAR PINION (Figure 1).

**Figure 1. Pinion Gear**

- 4) While pressing down the lock of the STOPPER GEAR (PL 3.1), release the lock of the LEVER BTM LOCK (PL 3.1) to lift up the PLATE ASSEMBLY BTM (Figure 2).
- 5) Slide the GUIDE ASSEMBLY SD L550 (PL 12.3) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 6) Slide the GUIDE ASSEMBLY SD R550 (PL 12.3) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 7) Remove the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back, that secure the HOUSING TOP 550 (PL 12.3) to the HOUSING BASE 550 (PL 3.1).
- 8) Turn the 550 PAPER CASSETTE over, and pull out the HOUSING TOP 550 frontward about 20 mm to release the claws on the top of the PLATE ASSEMBLY BTM from the hooks of the HOUSING TOP 550.
- 9) Release the 4 hooks of the HOUSING TOP 550, and remove the HOUSING TOP 550 and HOUSING EXTENSION 550 (PL 3.1) from the HOUSING BASE 550 (Figure 1).
- 10) Slide the SUPPORT GUIDE IND (PL 3.1), and remove it from the groove of the HOUSING EXTENSION 550. Then, separate the HOUSING TOP 550 and HOUSING EXTENSION 550.

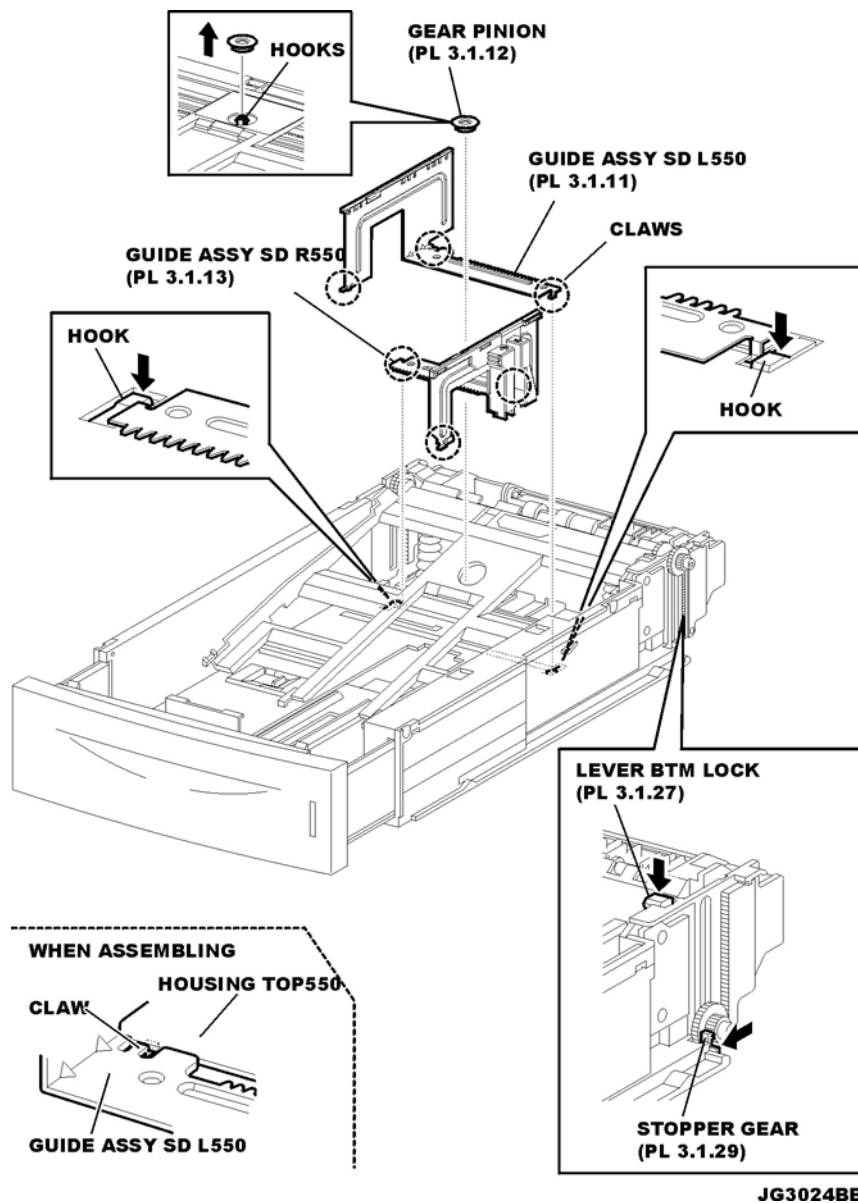


Figure 2. Lever BTM Lock

- 11) Remove the GUIDE INDICATOR 1 (PL 3.1) from the hooks of the HOUSING TOP 550, and remove the SUPPORT GUIDE IND together with the GUIDE INDICATOR 1 and GUIDE INDICATOR 2 from the HOUSING TOP 550.
- 12) Release the hook of the SUPPORT GUIDE IND, and remove the SUPPORT GUIDE IND from the GUIDE INDICATOR 2.
- 13) Extract the GUIDE INDICATOR 2 from the back side of the GUIDE INDICATOR 1.

Replacement

- 1) Insert the GUIDE INDICATOR 2 into the hole of the GUIDE INDICATOR 1 (PL 3.1) from back.
- 2) Install the SUPPORT GUIDE IND (PL 3.1) to the GUIDE INDICATOR 2, and secure it with the hook.

NOTE

Install the SUPPORT GUIDE IND to the GUIDE INDICATOR 2 in the direction shown in the figure.

- 3) Install the SUPPORT GUIDE IND together with the GUIDE INDICATOR 1 and GUIDE INDICATOR 2 to the HOUSING TOP 550 (PL 12.3), and secure the GUIDE INDICATOR 1 using the 2 hooks of the HOUSING TOP 550.
- 4) Slide the SUPPORT GUIDE IND (PL 3.1) along the groove of the HOUSING EXTENSION 550 to install, and assemble the HOUSING TOP 550 and HOUSING EXTENSION 550 into 1 unit.
- 5) Install the HOUSING EXTENSION 550 and HOUSING TOP 550 (PL 12.3) to the HOUSING BASE 550 while pushing the LINK SW SIZE1-550 (PL 3.1), LINK SW SIZE2-550 (PL 3.1) and LINK SW SIZE3-550 (PL 3.1) of the HOUSING BASE 550 outward as shown (Figure 3).

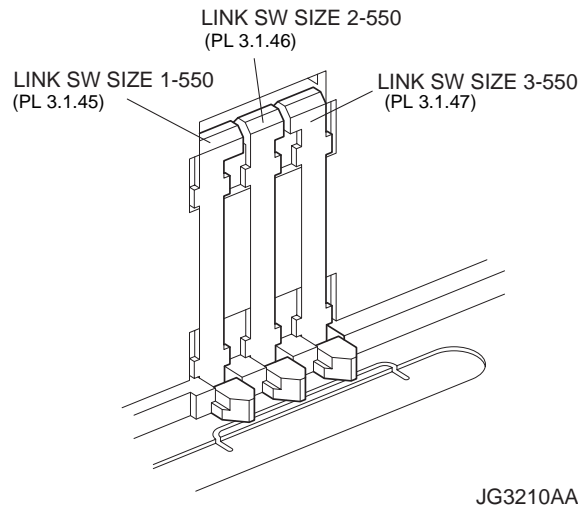


Figure 3. Link Size Switches

NOTE

Be sure to put 2 claws on the top of the PLATE ASSEMBLY BTM under the hooks on the HOUSING TOP 550.

- 6) After assembling the HOUSING TOP 550 to the HOUSING BASE 550 using the 4 hooks, secure them using the 2 screws (gold tapping, 8mm) on both right and left sides, as well as the 6 screws (gold tapping, 8mm) on the back.

NOTE

After tightening the screws, move the GUIDE ASSEMBLY END 550 back and forth, and make sure that the LINK SW SIZES operate smoothly.

- 7) Insert the link lever of the GUIDE INDICATOR 1 (PL 3.1) into the hole of the PLATE ASSEMBLY BTM.
- 8) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSEMBLY SD R550 (PL 12.3) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD R550 sit correctly in the grooves of the HOUSING TOP 550.

- 9) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSEMBLY SD L550 (PL 12.3) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSEMBLY SD L550 sit correctly in the grooves of the HOUSING TOP 550.

- 10) Push the PLATE ASSEMBLY BTM downward to lock.
- 11) Install the GEAR PINION (PL 12.3) to the HOUSING TOP 550.

NOTE

When installing the GEAR PINION, make sure the GUIDE ASSEMBLY SD R550 and GUIDE ASSEMBLY SD L550 are completely opened. If not, the side register may be misaligned.

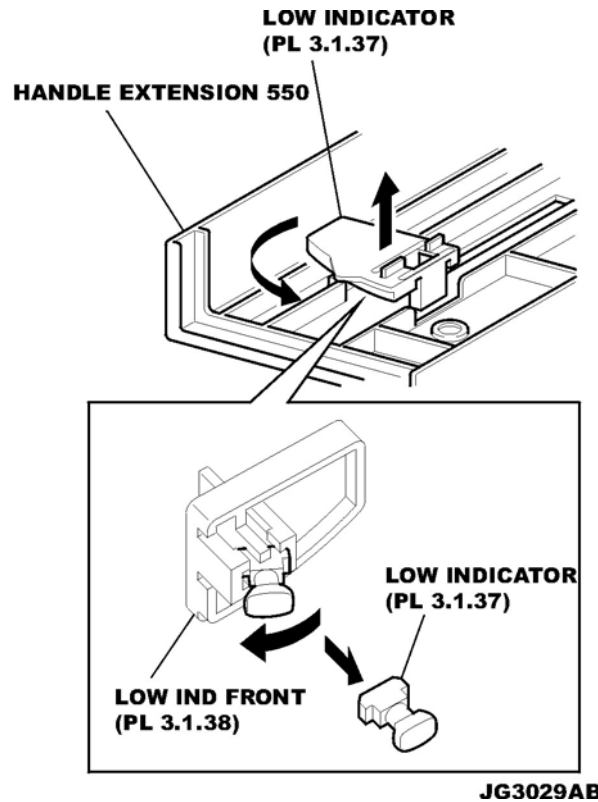
12) Install the COVER CST (PL 12.3) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSEMBLY BTM

RRP3.10 LOW IND FRONT (PL 3.1)**Removal**

- 1) Remove the COVER CST (PL 12.3) from the 550 PAPER CASSETTE.
- 2) Remove the HANDLE EXTENSION 550 (PL 3.1) (RRP3.7).
- 3) Turn the LOW INDICATOR (PL 3.1) by 90 degrees, and remove it together with the LOW IND FRONT from the HANDLE EXTENSION 550 (Figure 1).
- 4) Release the hook on the one side of the LOW IND FRONT, and remove the LOW IND FRONT from the LOW INDICATOR.

**Figure 1. Low Indicator****Replacement**

- 1) Install the LOW IND FRONT to the LOW INDICATOR (PL 3.1).

NOTE

When installing the LOW IND FRONT to the LOW INDICATOR, be careful in the installing direction of the LOW IND FRONT.

- 2) Turn the LOW INDICATOR by 90 degrees in the opposite direction of the arrow, and install it together with the LOW IND FRONT to the HANDLE EXTENSION 550 (Figure 1).
- 3) Install the HANDLE EXTENSION 550 (PL 3.1) (RRP3.7)
- 4) Install the COVER CST (PL 12.3) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSEMBLY BTM

RRP4. 150 paper Feeder

RRP4.1 150 FEEDER ASSEMBLY (PL 4.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 3) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 4) Remove the CHUTE TRANSFER (PL 6.1) together with the BTR ASSEMBLY (RRP6.9).
- 5) Disconnect the connector (P/J245) of the HARNESS ASSEMBLY TRAY 1 (PL 4.1) from the HARNESS ASSEMBLY CHUTE (PL 9.1) (Figure 1).
- 6) Disconnect the connector (P/J221) of the HARNESS ASSEMBLY TONER 1 (PL 4.1) from the HARNESS ASSEMBLY TONER 2 (PL 9.1.28) (Figure 1).
- 7) Remove the 5 screws (silver with flange, 8mm) securing the 150 FEEDER ASSEMBLY to the printer (Figure 1).
- 8) Shift the 150 FEEDER ASSEMBLY backward, and remove the right boss of the 150 FEEDER ASSEMBLY from the frame.
- 9) Lift up the 150 FEEDER ASSEMBLY in the direction of the arrow (A), and remove the left boss of the 150 FEEDER ASSEMBLY.

NOTE

The 150 FEEDER ASSEMBLY clicks into a notch when lifted to the half way point, push the assembly past the notch.

Remove the 150 FEEDER ASSEMBLY from the printer.

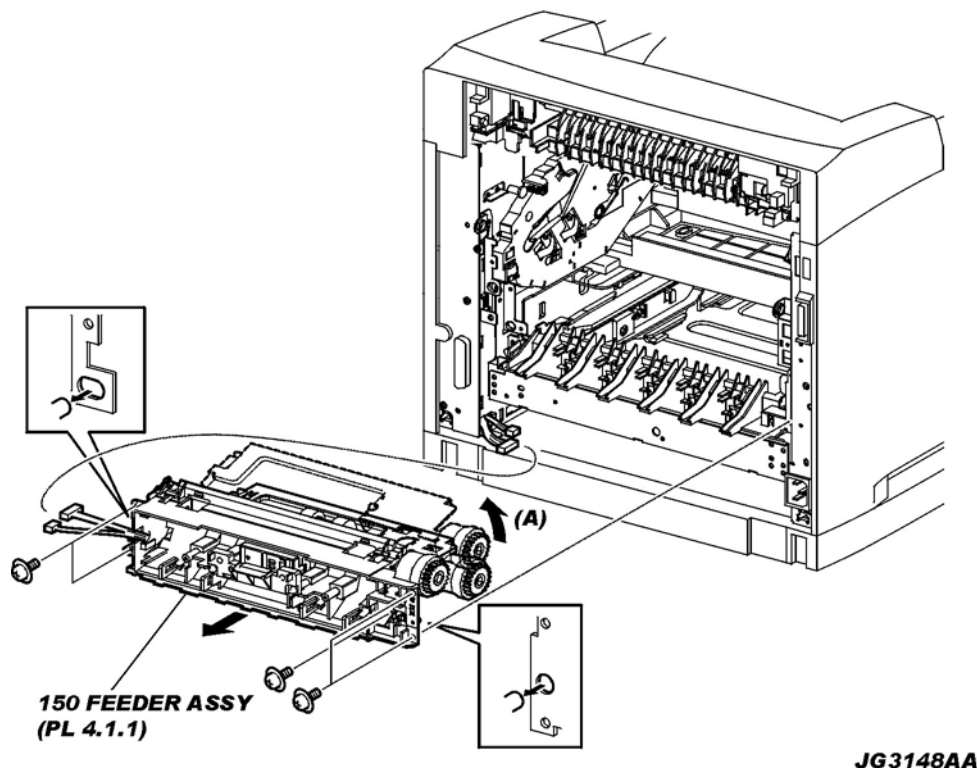


Figure 1. Feeder Assembly

Replacement

- 1) While lifting up the 150 FEEDER ASSEMBLY in the direction of the arrow (A), and install it to the printer. Then, put the bosses at right and left of the 150 FEEDER ASSEMBLY into the holes of the printer.
- 2) Secure the 150 FEEDER ASSEMBLY to the printer using the 5 screws (silver with flange, 8mm).

NOTE

One of the screws that secure the 150 FEEDER ASSEMBLY is tightened together with the EARTH PLATE BASE (PL 4.1.27).

- 3) Connect the connector (P/J221) of the HARNESS ASSEMBLY TONER 1 (PL 4.1) to the HARNESS ASSEMBLY TONER 2 (PL 9.1.28).
- 4) Connect the connector (P/J 245) of the HARNESS ASSEMBLY TRAY 1 (PL 4.1) to the HARNESS ASSEMBLY CHUTE (PL 9.1).
- 5) Install the CHUTE TRANSFER (PL 6.1) together with the BTR ASSEMBLY to the printer (RRP6.9).

NOTE

Do not tighten the screw to the left side hole of the CHUTE TRANSFER.

- 6) Install the COVER REAR (PL 1.1) (RRP1.1).

NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 7) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 8) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP4.2 ROLL ASSEMBLY NUDGER (PL 4.1), ROLL ASSEMBLY FEED (PL 4.1)**Removal**

- 1) Open the COVER OPEN (PL 1.1).
- 2) Release the hook securing the ROLL ASSEMBLY NUDGER, and pull the ROLL ASSEMBLY NUDGER out from the SHAFT NUDGER (PL 4.1) (Figure 1).
- 3) Release the hook securing the ROLL ASSEMBLY FEED, and pull the ROLL ASSEMBLY FEED out from the SHAFT FEED (PL 4.1) (Figure 1).

NOTE

When removing, do not touch the roller surface of the ROLL ASSEMBLY NUDGER and ROLL ASSEMBLY FEED.

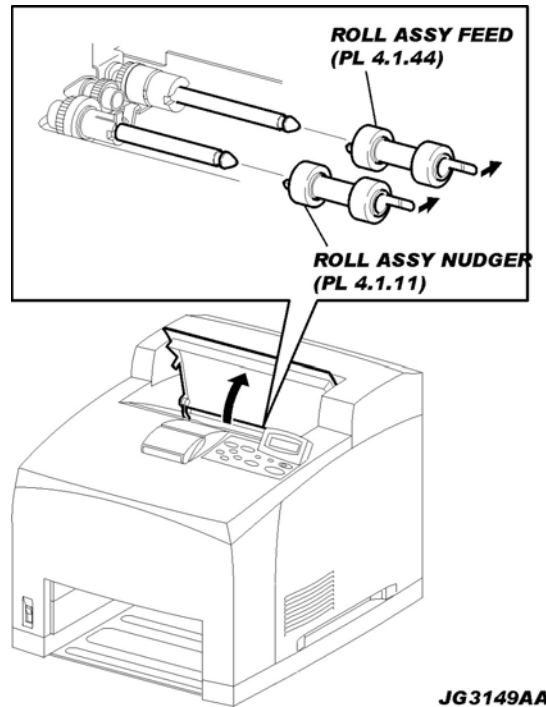


Figure 1. Roll Feed Assembly

Replacement

NOTE

The ROLL ASSEMBLY FEED and ROLL ASSEMBLY NUDGER are the same parts, although the names differ.

- 1) Install the ROLL ASSEMBLY FEED to the SHAFT FEED (PL 4.1), and secure the ROLL ASSEMBLY FEED with the hook.

NOTE

Be sure to install the hook of the ROLL ASSEMBLY FEED into the groove of the SHAFT FEED.

- 2) Install the ROLL ASSEMBLY NUDGER to the SHAFT NUDGER (PL 4.1), and secure the ROLL ASSEMBLY NUDGER with the hook.

NOTE

Be sure to install the hook of the ROLL ASSEMBLY NUDGER into the groove of the SHAFT NUDGER.

- 3) Close the COVER OPEN (PL 1.1).

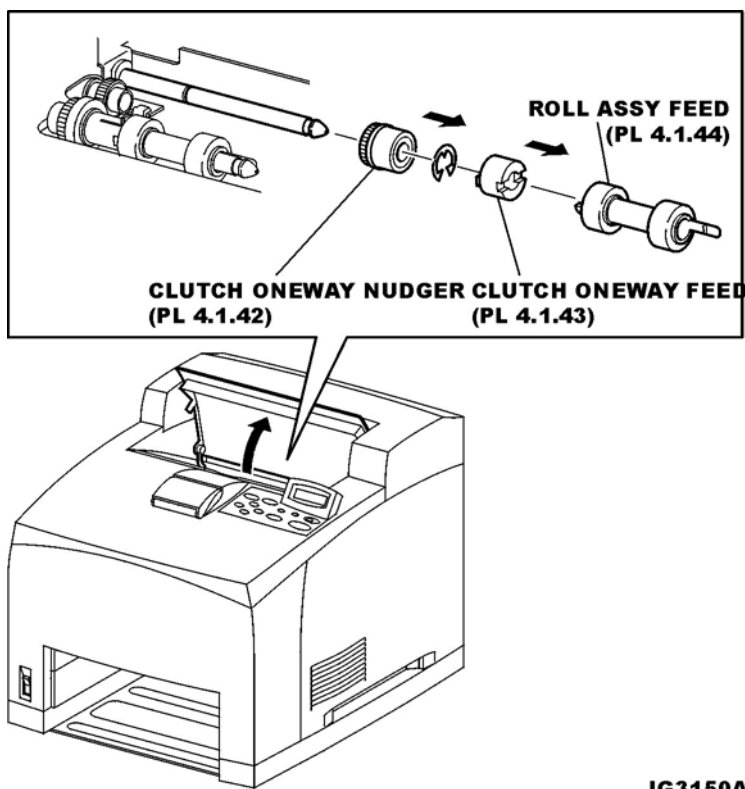
RRP4.3 CLUTCH ONEWAY NUDGER (PL 4.1)**Removal**

- 1) Open the COVER OPEN (PL 1.1).
- 2) Remove the ROLL ASSEMBLY FEED (PL 4.1) (RRP4.2).

NOTE

When removing, do not touch the roller surface of the ROLL ASSEMBLY FEED.

- 3) Pull out the CLUTCH ONEWAY FEED (PL 4.1) from the SHAFT FEED (PL 4.1) (Figure 1).
- 4) Remove the E-ring securing the CLUTCH ONEWAY NUDGER (PL 4.1) to the SHAFT FEED (Figure 1).
- 5) Pull out the CLUTCH ONEWAY NUDGER from the SHAFT FEED (Figure 1).



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Figure 1. One-way Nudger Clutch

Replacement

- 1) Install the CLUTCH ONEWAY NUDGER (PL 4.1) to the SHAFT FEED (PL 4.1).
- 2) Clip the E-ring to the SHAFT FEED to secure the CLUTCH ONEWAY NUDGER.
- 3) Install the CLUTCH ONEWAY FEED (PL 4.1) to the SHAFT FEED.
- 4) Install the ROLL ASSEMBLY FEED (PL 4.1) to the SHAFT FEED, and secure it with the hook (RRP4.2).

NOTE

Be sure to install the hook of the ROLL ASSEMBLY FEED into the groove of the SHAFT FEED.

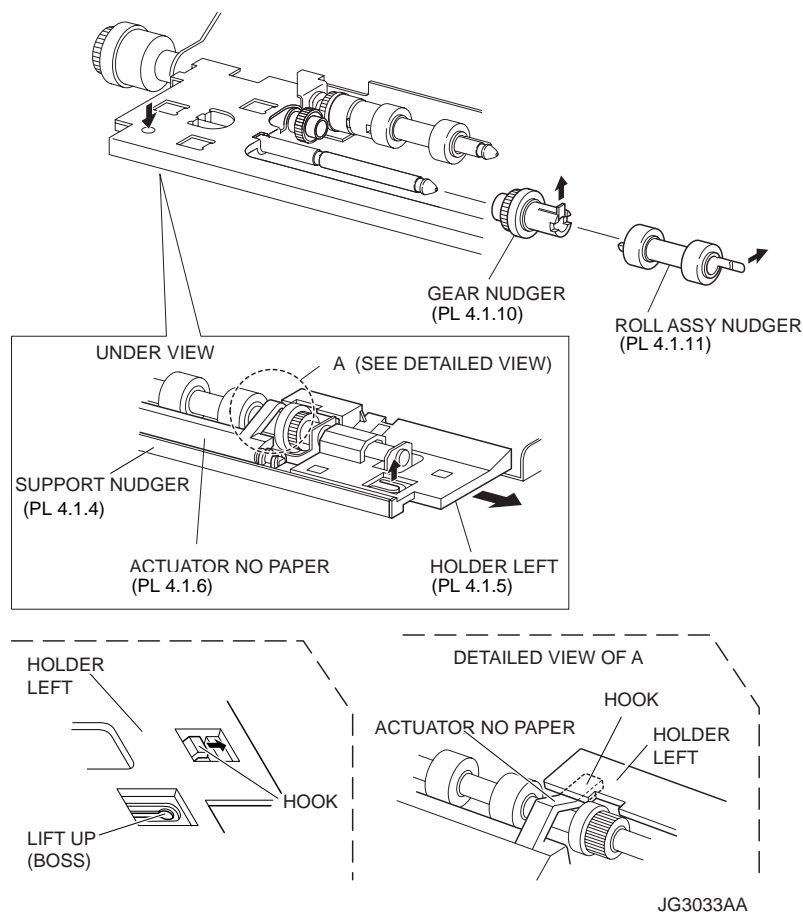
- 5) Close the COVER OPEN (PL 1.1).

RRP4.4 GEAR NUDGER (PL 4.1)**Removal**

- 1) Open the COVER OPEN (PL 1.1).
- 2) While pressing down the boss of the HOLDER LEFT (PL 4.1) at the back of the 150 FEEDER ASSEMBLY, shift the HOLDER LEFT in the direction of the arrow to remove the 3 hooks (Figure 1).
- 3) Remove the HOLDER LEFT from the SUPPORT NUDGER (PL 12.3). At the same time, the ACTUATOR NO PAPER (PL 4.1) is removed.
- 4) Release the hook of the ROLL ASSEMBLY NUDGER (PL 4.1), and pull the ROLL ASSEMBLY NUDGER out from the SHAFT NUDGER (PL 4.1).
- 5) Release the hook of the GEAR NUDGER, and pull the GEAR NUDGER out from the SHAFT NUDGER.

NOTE

When removing, do not touch the roller surface of the ROLL ASSEMBLY NUDGER and GEAR NUDGER.

**Figure 1. Nudger Gear**

Replacement

- 1) Install the GEAR NUDGER to the SHAFT NUDGER (PL 4.1), and secure the GEAR NUDGER with the hook.

NOTE

When installing, do not touch the roller surface of the ROLL ASSEMBLY NUDGER and GEAR NUDGER.

NOTE

Be sure to install the hook of the GEAR NUDGER into the groove of the SHAFT NUDGER.

- 2) Install the ROLL ASSEMBLY NUDGER (PL 4.1) to the SHAFT NUDGER, and secure the ROLL ASSEMBLY NUDGER with the hook.

NOTE

Be sure to install the hook of the ROLL ASSEMBLY NUDGER into the groove of the SHAFT NUDGER.

- 3) Install the HOLDER LEFT (PL 4.1) and ACTUATOR NO PAPER (PL 4.1) to the SUPPORT NUDGER (PL 12.3).

NOTE

Be sure to install the shafts on both ends of the ACTUATOR NO PAPER into the HOLDER LEFT and SUPPORT NUDGER.

NOTE

Assemble the hook of the ACTUATOR NO PAPER to the HOLDER LEFT as shown (Figure 1).

- 4) Move the HOLDER LEFT (PL 4.1) in the opposite direction of the arrow, and secure it to the 150 FEEDER ASSEMBLY with the 3 hooks.

NOTE

After installing, move the ACTUATOR NO PAPER with a finger, and make sure that the ACTUATOR NO PAPER operates smoothly.

RRP4.5 ROLL REGI RUBBER (PL 4.1.12)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 3) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 4) Remove the CHUTE TRANSFER (PL 6.1) together with the BTR ASSEMBLY (RRP6.9).
- 5) Remove the 150 FEEDER ASSEMBLY (PL 4.1) (RRP4.1).
- 6) Remove 2 SPRING REGIs (PL 4.1) hanging to the CHUTE REGI (PL 4.1) and ROLL REGI RUBBER (PL 4.1.12) on both sides of the 150 FEEDER ASSEMBLY (Figure 1).
- 7) Remove the E-ring securing the GEAR REGI RUBBER (PL 4.1) to the ROLL REGI RUBBER, and remove the GEAR REGI RUBBER from the ROLL REGI RUBBER (Figure 1).
- 8) Remove the E-ring securing the BEARING REGI LEFT (PL 4.1) to the ROLL REGI RUBBER.
- 9) Pull the BEARING REGI LEFT, and turn it in the direction of the arrow shown in the figure, and remove the notch of the BEARING REGI LEFT from the protrusion of the CHUTE REGI (NOTE 1).
- 10) Pull the BEARING REGI LEFT out from the ROLL REGI RUBBER.
- 11) Remove the E-ring securing the CLUTCH REGI (PL 4.1), and remove the CLUTCH REGI.
- 12) Pull the BEARING REGI RIGHT (PL 4.1), and turn it in the direction of the arrow shown in the figure, and remove the notch of the BEARING REGI RIGHT from the protrusion of the CHUTE REGI (NOTE 1).
- 13) Pull the BEARING REGI RIGHT out from the ROLL REGI RUBBER.
- 14) Shift the ROLL REGI RUBBER left, and extract the right of the ROLL REGI RUBBER from the hole of the CHUTE REGI, and then extract the ROLL REGI RUBBER upward.

NOTE

When removing, do not touch the roller surface of the ROLL REGI RUBBER.

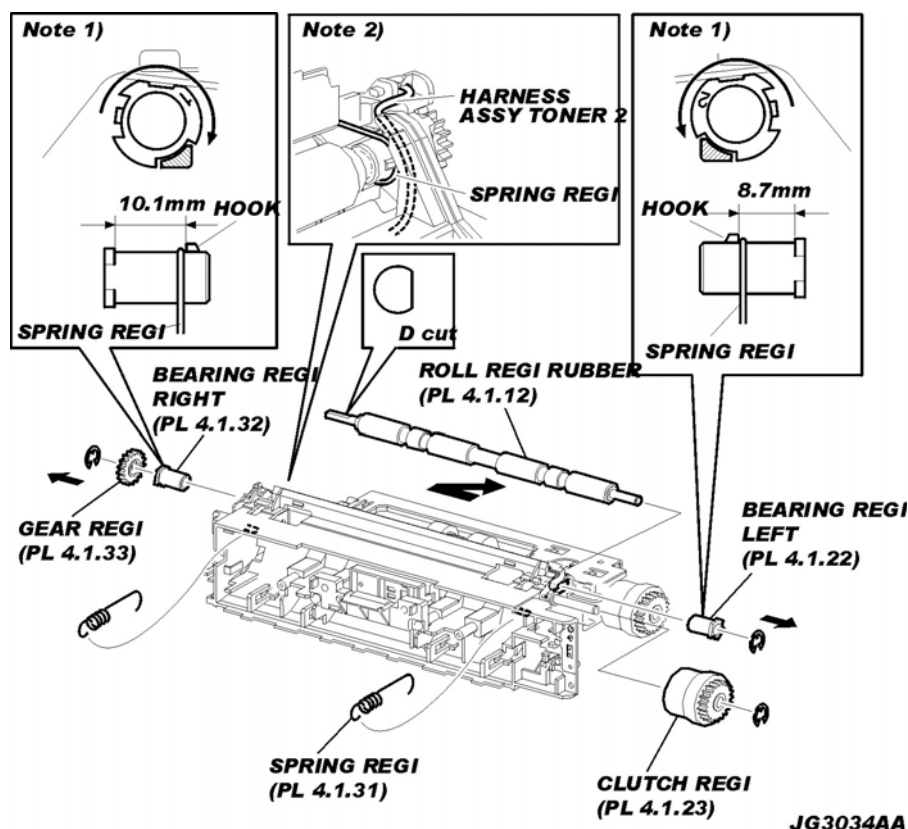
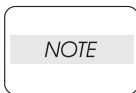


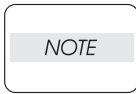
Figure 1. Rubber Registration Roller

Replacement

- 1) Shift the ROLL REGI RUBBER in the opposite direction of the arrow, and install it to the 150 FEEDER ASSEMBLY.

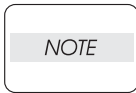


When installing, do not touch the roller surface of the ROLL REGI RUBBER.



Install the ROLL REGI RUBBER so that its D-cut is positioned at the BEARING REGI RIGHT side.

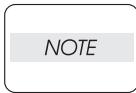
- 2) Install the BEARING REGI RIGHT (PL 4.1) to the ROLL REGI RUBBER.



The shapes of the flange and the positions of the hook are different on the BEARING REGI RIGHT (white) and BEARING REGI LEFT (black).

- 3) Turn the BEARING REGI RIGHT in the opposite direction of the arrow, and install it to the CHUTE REGI.

- 4) Install the BEARING REGI LEFT (PL 4.1) to the ROLL REGI RUBBER.



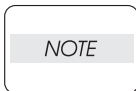
The shapes of the flange and the positions of the hook are different on the BEARING REGI RIGHT (white) and BEARING REGI LEFT (black).

- 5) Turn the BEARING REGI LEFT in the opposite direction of the arrow, and install it to the CHUTE REGI.

- 6) Clip the E-ring to the ROLL REGI RUBBER to secure the BEARING REGI LEFT.

- 7) Install the GEAR REGI RUBBER (PL 4.1) to the ROLL REGI RUBBER, and secure it using the E-ring.

- 8) Hang 2 SPRING REGIs (PL 4.1) to the CHUTE REGI (PL 4.1) and BEARING REGI RUBBER.



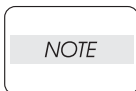
When hanging the SPRING REGIs, make sure that the SPRING REGIs are hung to the boss of the CHUTE REGI, and to the inside of the hooks of the BEARING REGI LEFT and BEARING REGI RIGHT.

After hanging the SPRING REGIs, make sure the SPRING REGIs have not pinched the HARNESS ASSEMBLY TONER 2 (NOTE 2) (Figure 1).

- 9) Install the CLUTCH REGI (PL 4.1) (RRP4.6).

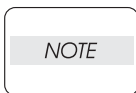
- 10) Install the 150 FEEDER ASSEMBLY (PL 4.1) (RRP4.1).

- 11) Install the CHUTE TRANSFER (PL 6.1) together with the BTR ASSEMBLY (RRP6.9).



Do not tighten the screw to the left side hole of the CHUTE TRANSFER.

- 12) Install the COVER REAR (PL 1.1) (RRP1.1).



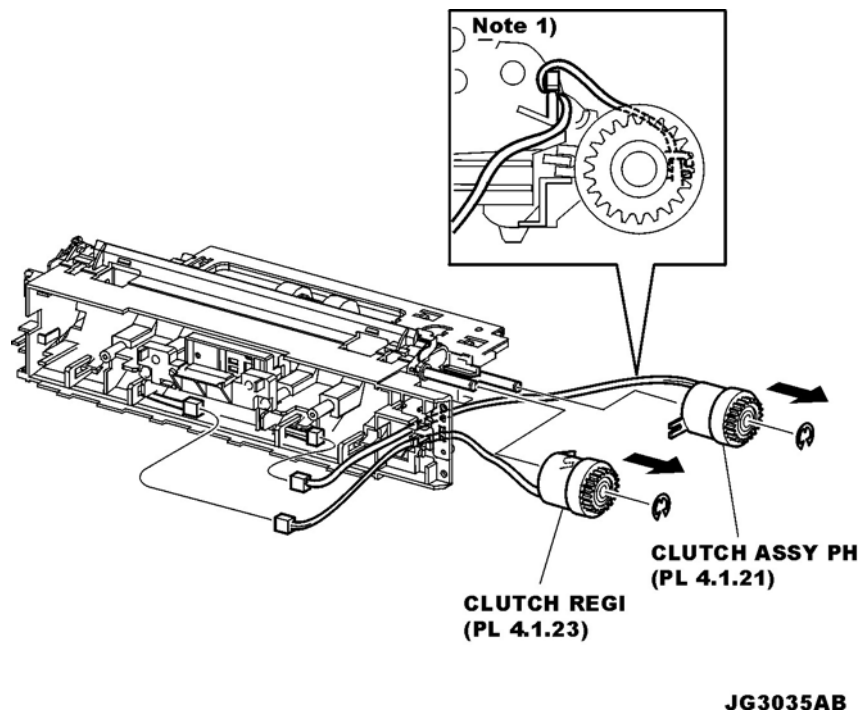
There are 2 kinds of screws, make sure they are installed correctly.

- 13) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).

- 14) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP4.6 CLUTCH ASSEMBLY PH (PL 4.1.21), CLUTCH REGI (PL 4.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 3) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 4) Remove the CHUTE TRANSFER (PL 6.1) together with the BTR ASSEMBLY (RRP6.9).
- 5) Remove the 150 FEEDER ASSEMBLY (PL 4.1) (RRP4.1).
- 6) Disconnect the connector (P/J242) of the CLUTCH ASSEMBLY PH from the HARNESS ASSEMBLY TRAY 1 (PL 4.1) (Figure 1).
- 7) Remove the E-ring securing the CLUTCH ASSEMBLY PH, and remove the CLUTCH ASSEMBLY PH from the SHAFT FEED (PL 4.1) (Figure 1).
- 8) Disconnect the connector (P/J243) of the CLUTCH REGI from the HARNESS ASSEMBLY TRAY 1.
- 9) Remove the E-ring securing the CLUTCH REGI, and remove the CLUTCH REGI from the ROLL REGI METAL (PL 4.1).

**Figure 1. Registration & PH Clutches****Replacement****NOTE**

The part names differ with the CLUTCH ASSEMBLY PH and CLUTCH REGI, but they are the same parts.

- 1) Install the CLUTCH REGI to the ROLL REGI METAL (PL 4.1), and secure it using the E-ring.

NOTE

When installing, make sure that the notch of the CLUTCH REGI is combined with the boss of the CHUTE REGI.

- 2) Connect the connector (P/J243) of the CLUTCH REGI (PL 4.1) to the HARNESS ASSEMBLY TRAY 1 (PL 4.1).
- 3) Install the CLUTCH ASSEMBLY PH to the SHAFT FEED, and secure it using the E-ring.

NOTE

When installing, make sure that the notch of the CLUTCH ASSEMBLY PH is combined with the boss of the CHUTE REGI.

NOTE

The harness of the CLUTCH ASY PH should be routed around the portion of the CHUTE REGI as shown (Figure 1).

- 4) Connect the connector (P/J242) of the CLUTCH ASSEMBLY PH to the HARNESS ASSEMBLY TRAY 1.
- 5) Install the 150 FEEDER ASSEMBLY (PL 4.1) (RRP4.1).
- 6) Install the CHUTE TRANSFER (PL 6.1) together with the BTR ASSEMBLY (RRP6.9).

NOTE

Do not tighten the screw to the left side hole of the CHUTE TRANSFER.

- 7) Install the COVER REAR (PL 1.1) (RRP1.1).

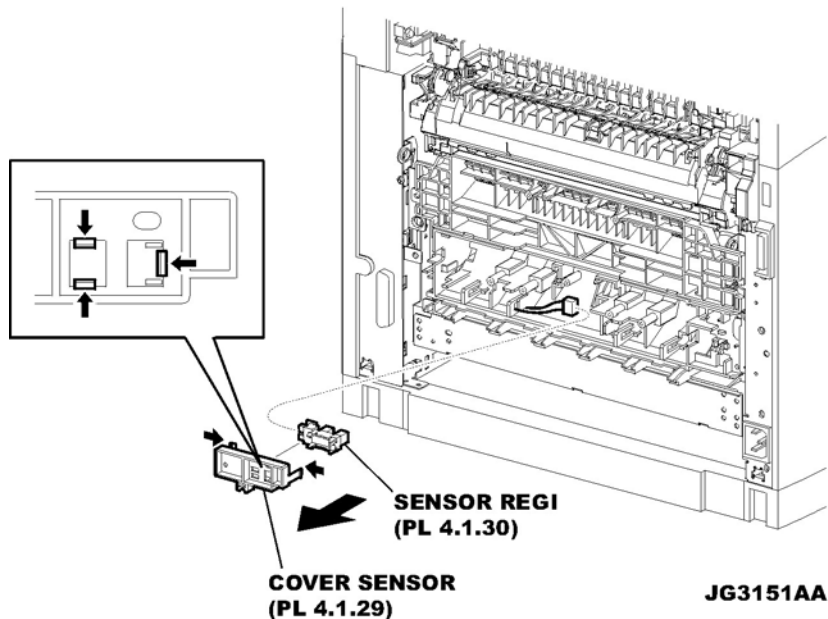
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 8) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 9) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP4.7 SENSOR REGI (PL 4.1.30)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Release the hooks securing the COVER SENSOR (PL 4.1), and remove the COVER SENSOR from the CHUTE ASSEMBLY REGI (Figure 1).
- 4) Release the hooks securing the SENSOR REGI, and remove the SENSOR REGI from the COVER SENSOR (Figure 1).
- 5) Disconnect the connector (P/J241) of the HARNESS ASSEMBLY TRAY 1 (PL 4.1) from the SENSOR REGI.

**Figure 1. Registration Sensor****Replacement**

- 1) Connect the connector (P/J241) of the HARNESS ASSEMBLY TRAY 1 (PL 4.1) to the SENSOR REGI.
- 2) Install the SENSOR REGI to the COVER SENSOR (PL 4.1), and secure it using hooks (Figure 1).
- 3) Install the COVER SENSOR to the CHUTE ASSEMBLY REGI, and secure it using hooks (Figure 1).
- 4) Install the COVER REAR (PL 1.1) (RRP1.1)

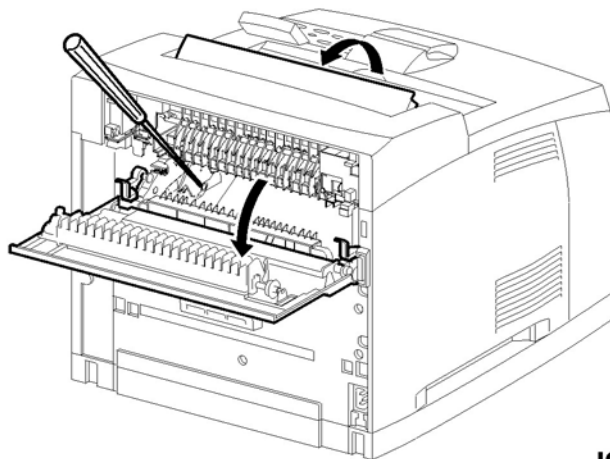
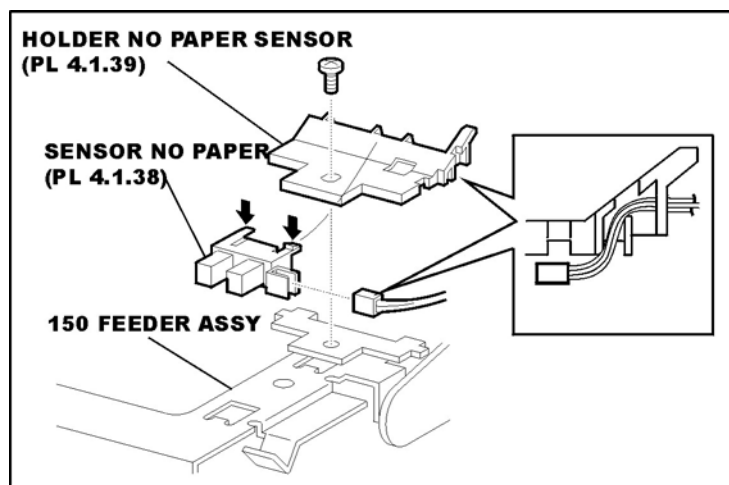
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 5) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

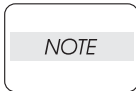
RRP4.8 SENSOR NO PAPER (PL 4.1.38)**Removal**

- 1) Open the COVER OPEN (PL 1.1).
- 2) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Lift up the 150 FEEDER ASSEMBLY a little, insert a screwdriver through the space left by the FUSER ASSEMBLY, and remove the screw (gold, 8mm) securing the HOLDER NO PAPER SENSOR (PL 4.1) (Figure 1).
- 5) Remove the HOLDER NO PAPER SENSOR from the 150 FEEDER ASSEMBLY.
- 6) Release the hooks securing the SENSOR NO PAPER to the HOLDER NO PAPER SENSOR, and remove the SENSOR NO PAPER (Figure 1).
- 7) Disconnect the HARNESS ASSEMBLY TRAY 1 (PL 4.1) from the connector (P/J240) of the SENSOR NO PAPER (Figure 1).

**JG3152AA****Figure 1. No Paper Sensor****Replacement**

- 1) Connect the connector (P/J240) of the HARNESS ASSEMBLY TRAY 1 (PL 4.1) to the connector of the SENSOR NO PAPER.
- 2) Install the SENSOR NO PAPER to the HOLDER NO PAPER SENSOR (PL 4.1), and secure it using hooks (Figure 1).

- 3) Put the wires of the HARNESS ASSEMBLY TRAY 1 into the notch of the HOLDER NO PAPER SENSOR as shown (Figure 1).
- 4) Insert a screwdriver through the space left by the FUSER ASSEMBLY, and install the HOLDER NO PAPER SENSOR to the 150 FEEDER ASSEMBLY using the screw (gold, 8mm).

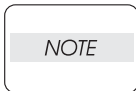


After tightening the screw, make sure that the wires of the HARNESS ASSEMBLY TRAY 1 have not been pinched.

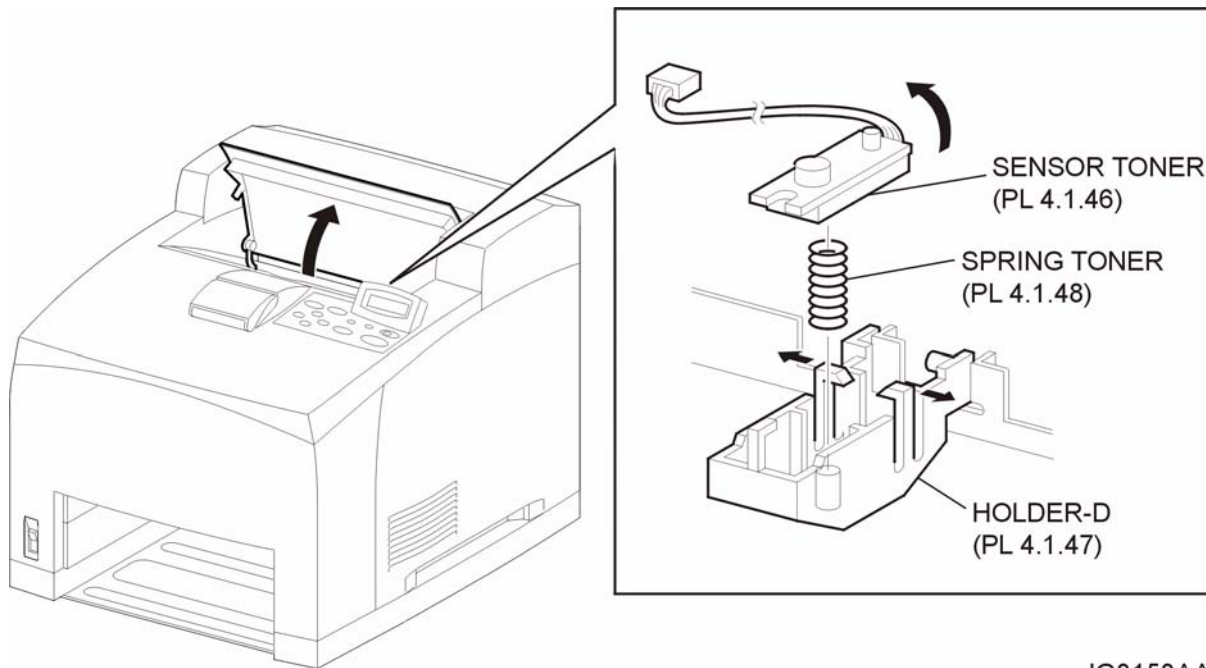
- 5) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 6) Install the COVER REAR 500 (PL 7.1) (RRP7.9).
- 7) Close the COVER OPEN (PL 1.1).

RRP4.9 SENSOR TONER (PL 4.1.46)**Removal**

- 1) Open the COVER OPEN (PL 1.1).
- 2) Disconnect the connector (P/J220) of the SENSOR TONER from the HARNESS ASSEMBLY TONER 1 (PL 4.1) (Figure 1).
- 3) Release the holdings of the harness of the SENSOR TONER from 2 clamps.
- 4) Release 2 hooks of the HOLDER-D (PL 4.1), and remove the SENSOR TONER from the HOLDER-D by turning it in the direction of the arrow (Figure 1).



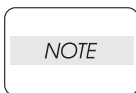
When removing the SENSOR TONER, be careful not to lose the SPRING TONER (PL 4.1.48) (Figure 1).



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Figure 1. Toner Sensor**Replacement**

- 1) Install the SENSOR TONER to the HOLDER-D (PL 4.1) by turning it in the opposite direction of the arrow, and secure it using 2 hooks (Figure 1).



When installing the SENSOR TONER, put the SPRING TONER on the boss of the HOLDER-D, and then install the SENSOR TONER on it.

- 2) Secure the harness of the SENSOR TONER using the 2 clamps.
- 3) Connect the connector (P/J220) of the SENSOR TONER to the HARNESS ASSEMBLY TRAY 1 (PL 4.1).
- 4) Close the COVER OPEN (PL 1.1).

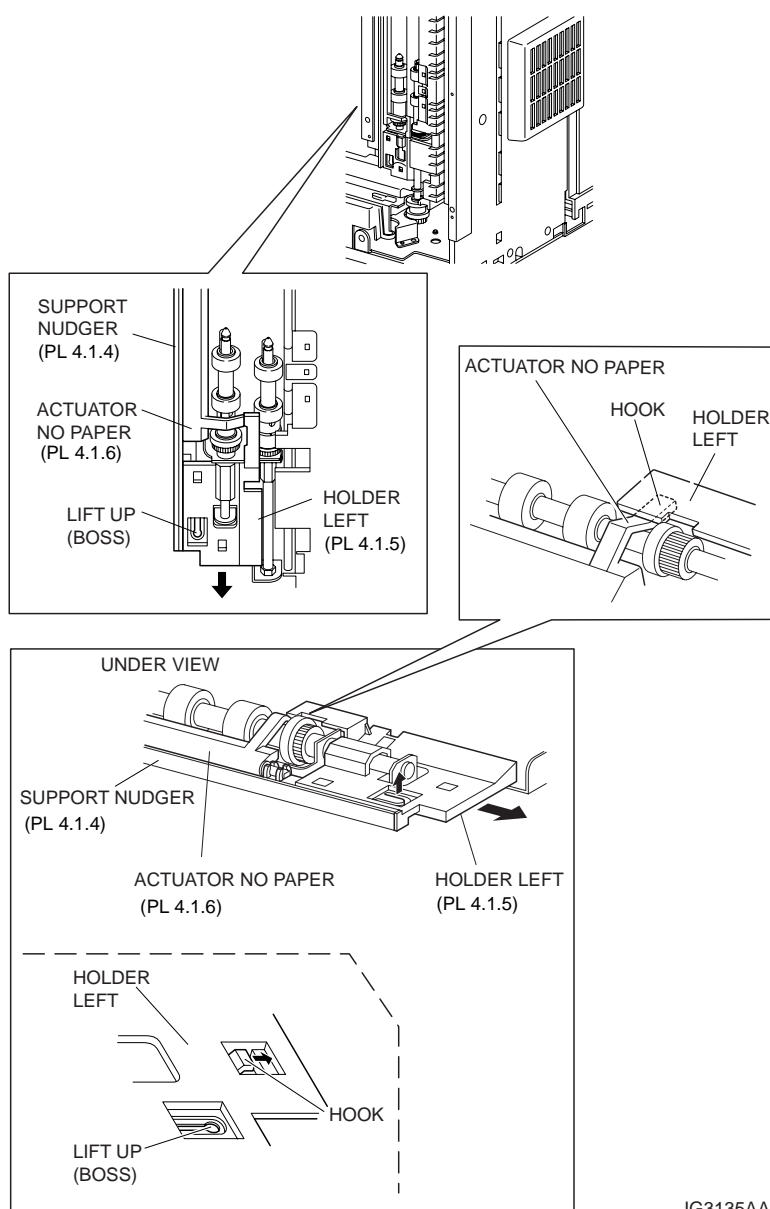
RRP4.10 ACTUATOR NO PAPER (PL 4.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 3) Place the printer down on its left side.

NOTE

Be careful not to scratch the cover, and do not drop the printer.

- 4) Open the COVER OPEN (PL 1.1).
- 5) While lifting up the boss of the HOLDER LEFT (PL 4.1) at the back of the 150 FEEDER ASSEMBLY, shift the HOLDER LEFT in the direction of the arrow to remove 3 hooks (Figure 1).
- 6) Remove the HOLDER LEFT from the SUPPORT NUDGER (PL 12.3). At the same time, the ACTUATOR NO PAPER (PL 4.1) is removed (Figure 1).



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Figure 1. No Paper Actuator

Replacement

- 1) Install the HOLDER LEFT (PL 4.1) and ACTUATOR NO PAPER (PL 4.1) to the SUPPORT NUDGER (PL 12.2).

NOTE

Be sure to install the shafts on both ends of the ACTUATOR NO PAPER into the HOLDER LEFT and SUPPORT NUDGER.

NOTE

Assemble the hook of the ACTUATOR NO PAPER to the HOLDER LEFT as shown (Figure 1).

- 2) Move the HOLDER LEFT (PL 4.1) in the opposite direction of the arrow, and secure it to the 150 FEEDER ASSEMBLY with 3 hooks.

NOTE

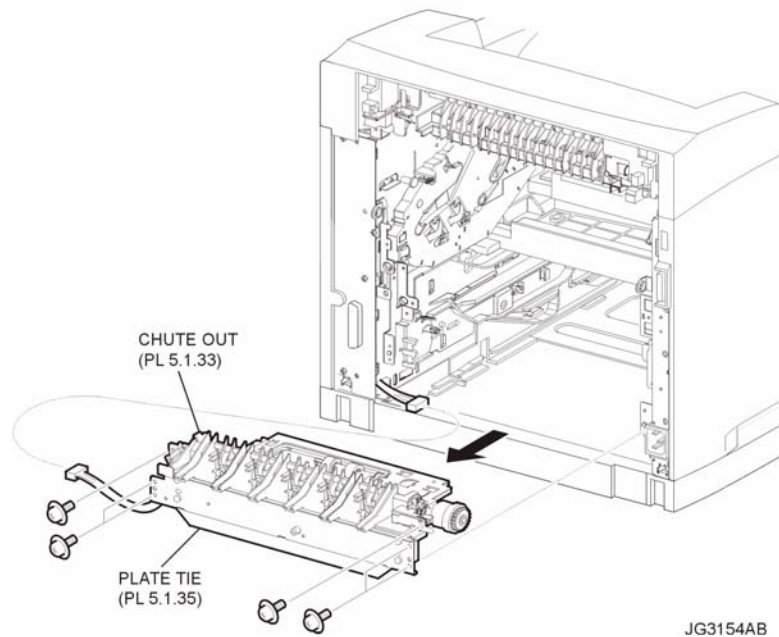
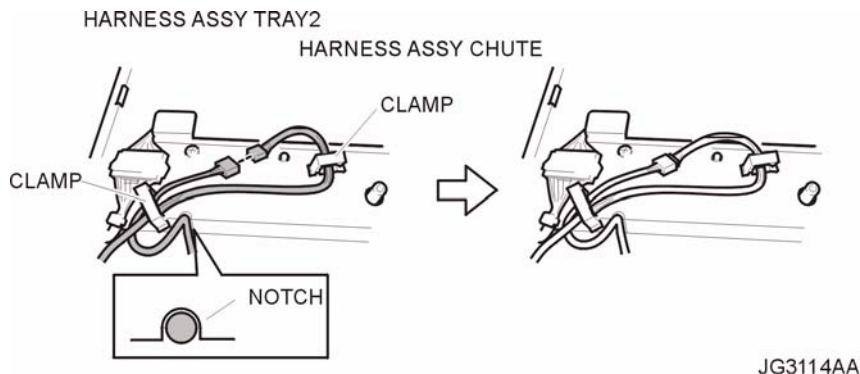
After installing, move the ACTUATOR NO PAPER with a finger, and make sure that the ACTUATOR NO PAPER operates smoothly.

- 3) Return the printer to the normal use state.
- 4) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8)
- 5) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP5. 550 Paper Feeder

RRP5.1 550 FEEDER ASSEMBLY (PL 5.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 3) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 4) Remove the CHUTE TRANSFER (PL 6.1) together with the BTR ASSEMBLY (RRP6.9).
- 5) Remove the 150 FEEDER ASSEMBLY (PL 4.1) (RRP4.1).
- 6) Disconnect the connector (P/J248) of the HARNESS ASSEMBLY TRAY 2 (PL 5.1) from the HARNESS ASSEMBLY CHUTE (PL 9.1) (Figure 1).
- 7) Release the holdings of the harness from 2 clamps on the PLATE TIE (PL 5.1) (Figure 2).
- 8) Remove the 4 screws (silver with flange, and spring washer 8mm) securing the PLATE TIE to the frame (Figure 1).
- 9) Remove the 2 screws (silver with flange, and spring washer 8mm) securing the CHUTE OUT (PL 5.1) to the frame (Figure 1).
- 10) Remove the 550 FEEDER ASSEMBLY from the frame.

**Figure 1. 550 Feeder Assembly****Figure 2. Harness Clamps****Replacement**

- 1) Install the 550 FEEDER ASSEMBLY to the frame.
- 2) Secure the CHUTE OUT (PL 5.1) to the frame using the 2 screws (silver with flange, and spring washer 8mm) (Figure 1).

NOTE

One of the screws that secure the CHUTE OUT to the frame is tightened together with the SPRING EARTH (PL 5.1.31).

- 3) Install the PLATE TIE (PL 5.1) to the frame using the 4 screws (silver with flange, and spring washer 8mm).
- 4) Secure the harness using the 2 clamps on the PLATE TIE. (Refer to figures.)

NOTE

When installing, put the harness into the notch on the PLATE TIE, and arrange it as shown (Figure 1).

- 5) Connect the connector (P/J248) of the HARNESS ASSEMBLY TRAY 2 (PL 5.1) to the HARNESS ASSEMBLY CHUTE (PL 9.1).
- 6) Install the 150 FEEDER ASSEMBLY (PL 4.1) (RRP4.1).
- 7) Install the CHUTE TRANSFER (PL 6.1) together with the BTR ASSEMBLY (RRP6.9).

NOTE

Do not tighten the screw to the left side hole of the CHUTE TRANSFER.

- 8) Install the COVER REAR (PL 1.1) (RRP1.1).

NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 9) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 10) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP5.2 ROLL ASSEMBLY NUDGER (PL 5.1), ROLL ASSEMBLY FEED (PL 5.1)**Removal**

- 1) Open the COVER OPEN (PL 1.1) so that the removing operation can be checked visually.
- 2) Remove Tray 1 and Tray 2 Paper Cassettes.
- 3) Lift up the 150 FEEDER ASSEMBLY (PL 4.1).

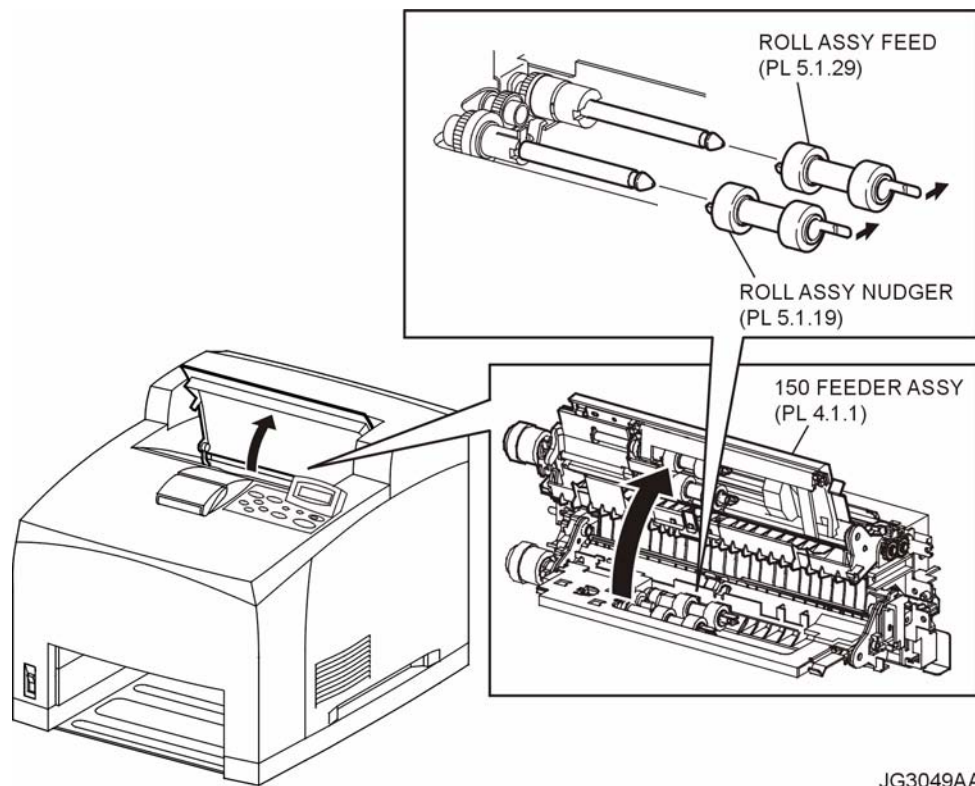
NOTE

The 150 FEEDER ASSEMBLY clicks into a notch when lifted to the half way point, push the assembly past the notch.

- 4) While holding the 150 FEEDER ASSEMBLY, release the hook securing the ROLL ASSEMBLY NUDGER by hand which is inserted through the space left by the Paper Cassettes, and pull it out from the SHAFT NUDGER (PL 5.1) (Figure 1).
- 5) Release the hook securing the ROLL ASSEMBLY FEED by using the same procedures of step 4 above, and pull it out from the SHAFT FEED (PL 5.1) (Figure 1).

NOTE

When removing, do not touch the roller surface of the ROLL ASSEMBLY NUDGER and ROLL ASSEMBLY FEED.



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Figure 1. Nudger & Feed Roll Assembly**Replacement**

- 1) While holding the 150 FEEDER ASSEMBLY, install the ROLL ASSEMBLY FEED to the SHAFT FEED (PL 5.1), and secure the ROLL ASSEMBLY FEED with the hook by using the same procedures of step 4 of removal (Figure 1).

NOTE

Be sure to install the hook of the ROLL ASSEMBLY FEED into the groove of the SHAFT FEED.

NOTE

When installing, do not touch the roller surface of the ROLL ASSEMBLY NUDGER and ROLL ASSEMBLY FEED.

- 2) Install the ROLL ASSEMBLY NUDGER to the SHAFT NUDGER (PL 5.1), and secure the ROLL ASSEMBLY NUDGER with the hook.

NOTE

Be sure to install the hook of the ROLL ASSEMBLY NUDGER into the groove of the SHAFT NUDGER.

- 3) Press the 150 FEEDER ASSEMBLY (PL 4.1) down so that it returns to the original position.
- 4) Install the Paper Cassettes to the Tray 1 and Tray 2.
- 5) Close the COVER OPEN (PL 1.1).

RRP5.3 CLUTCH ONEWAY NUDGER (PL 5.1.27)**Removal**

- 1) Open the COVER OPEN (PL 1.1) so that the removing operation can be checked visually.
- 2) Remove the Paper Cassettes of the Tray 1 and Tray 2.
- 3) Lift up the 150 FEEDER ASSEMBLY (PL 4.1).

NOTE

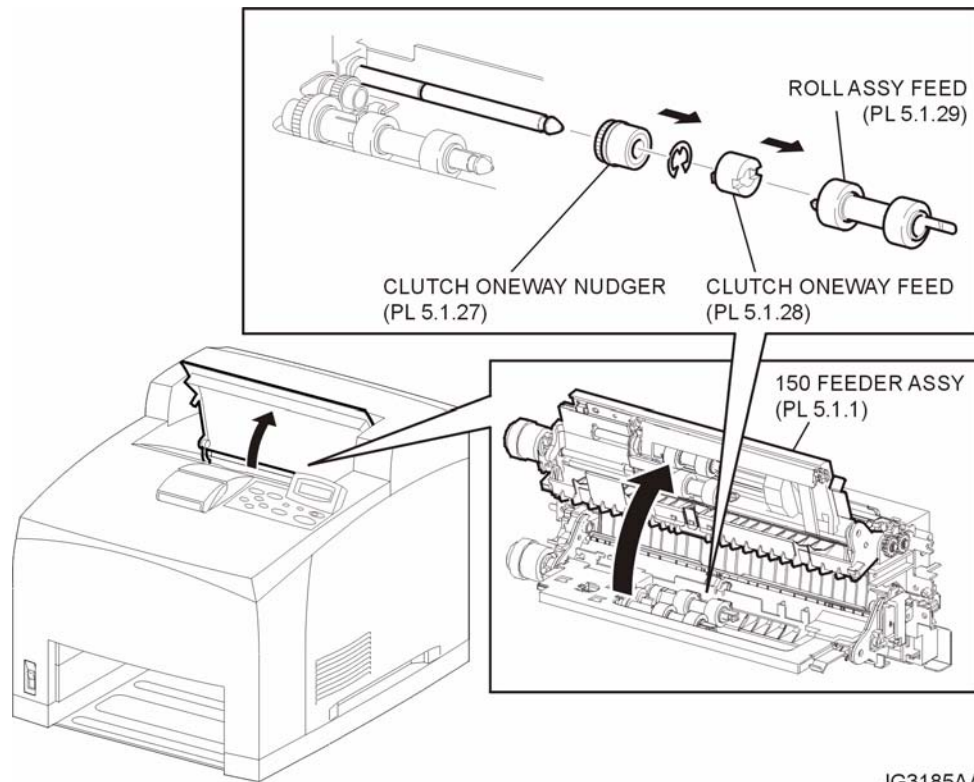
The 150 FEEDER ASSEMBLY clicks into a notch when lifted to the half way point, push the assembly past the notch.

- 4) While holding the 150 FEEDER ASSEMBLY, remove the ROLL ASSEMBLY FEED (PL 5.1.29) by hand which is inserted through the space left by the Paper Cassettes (RRP5.2) (Figure 1).

NOTE

When removing, do not touch the roller surface of the ROLL ASSEMBLY FEED.

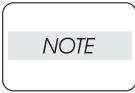
- 5) Pull out the CLUTCH ONEWAY FEED (PL 5.1.28) from the SHAFT FEED (PL 5.1) (Figure 1).
- 6) Remove the E-ring securing the CLUTCH ONEWAY NUDGER to the SHAFT FEED.
- 7) Pull out the CLUTCH ONEWAY NUDGER from the SHAFT FEED (Figure 1).



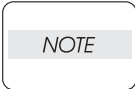
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Figure 1. Nudger One-way Clutch**Replacement**

- 1) Install the CLUTCH ONEWAY NUDGER to the SHAFT FEED (PL 5.1), and secure it using the E-ring (Figure 1).
- 2) Install the CLUTCH ONEWAY FEED (PL 5.1.28) to the SHAFT FEED (Figure 1).
- 3) Install the ROLL ASSEMBLY FEED (PL 5.1.29) to the SHAFT FEED, and secure it with the hook. (RRP5.2) (Figure 1).



Be sure to install the hook of the ROLL ASSEMBLY FEED into the groove of the SHAFT FEED.



When installing, do not touch the roller surface of the ROLL ASSEMBLY FEED.

- 4) Press the 150 FEEDER ASSEMBLY (PL 4.1) down so that it returns to the original position.
- 5) Close the COVER OPEN (PL 1.1).

RRP5.4 GEAR NUDGER (PL 5.1.18)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 3) Place the printer down on its left side.

NOTE

Be careful not to scratch the cover, and do not drop the printer.

- 4) Open the COVER OPEN (PL 1.1).
- 5) While lifting up the boss of the HOLDER LEFT (PL 5.1) at the back of the 550 FEEDER ASSEMBLY, shift the HOLDER LEFT in the direction of the arrow to remove 3 hooks (Figure 1).
- 6) Remove the HOLDER LEFT from the SUPPORT NUDGER (PL 5.1). At the same time, the ACTUATOR NO PAPER (PL 5.1) is removed (Figure 1).
- 7) Release the hook securing the ROLL ASSEMBLY NUDGER (PL 5.1), and pull it out from the SHAFT NUDGER (PL 5.1) (Figure 1).

NOTE

When removing, do not touch the roller surface of the ROLL ASSEMBLY NUDGER.

- 8) Release the hook securing the GEAR NUDGER, and pull it out from the SHAFT NUDGER.

NOTE

When removing, do not touch the roller surface of the GEAR NUDGER.

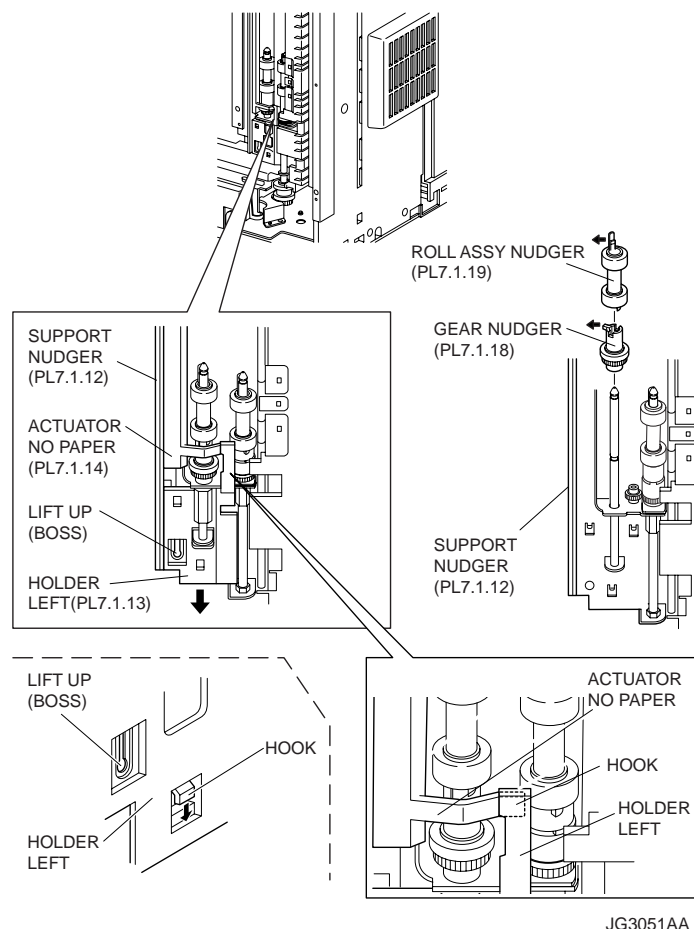


Figure 1. Nudger Gear

Replacement

- 1) Install the GEAR NUDGER to the SHAFT NUDGER (PL 5.1), and secure it with the hook.

NOTE

When installing, do not touch the roller surface of the GEAR NUDGER.

NOTE

Be sure to install the hook of the GEAR NUDGER into the groove of the SHAFT NUDGER.

- 2) Install the ROLL ASSEMBLY NUDGER (PL 5.1) to the SHAFT NUDGER, and secure it with the hook.

NOTE

When installing, do not touch the roller surface of the ROLL ASSEMBLY NUDGER.

NOTE

Be sure to install the hook of the ROLL ASSEMBLY NUDGER into the groove of the SHAFT NUDGER.

- 3) Install the HOLDER LEFT (PL 5.1) and ACTUATOR NO PAPER (PL 5.1) to the SUPPORT NUDGER (PL 5.1).

NOTE

Be sure to install the shafts on both ends of the ACTUATOR NO PAPER into the HOLDER LEFT and SUPPORT NUDGER.

NOTE

Assemble the hook of the ACTUATOR NO PAPER to the HOLDER LEFT as shown (Figure 1).

- 4) Move the HOLDER LEFT in the opposite direction of the arrow, and secure it to the 550 FEEDER ASSEMBLY with the 3 hooks.

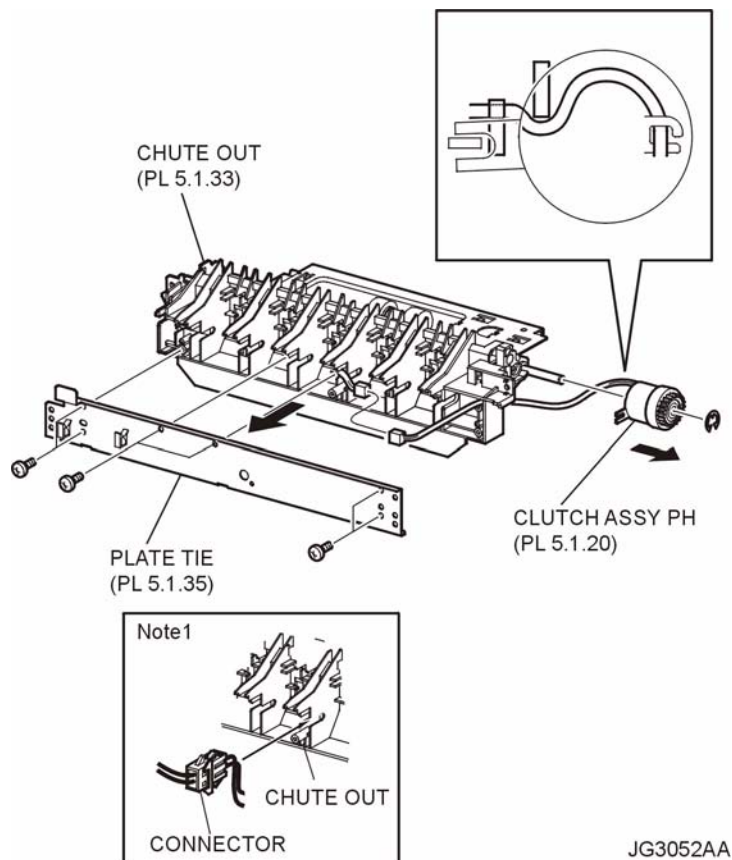
NOTE

After installing, move the ACTUATOR NO PAPER with a finger, and make sure that the ACTUATOR NO PAPER operates smoothly.

- 5) Return the printer to the normal use state.
- 6) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 7) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP5.5 CLUTCH ASSEMBLY PH (PL 5.1.20)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 3) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 4) Remove the CHUTE TRANSFER (PL 6.1) together with the BTR ASSEMBLY (RRP6.9).
- 5) Remove the 150 FEEDER ASSEMBLY (PL 4.1) (RRP4.1).
- 6) Remove the 550 FEEDER ASSEMBLY (PL 5.1) (RRP5.1).
- 7) Remove the 6 screws (gold tapping, 8mm) securing the PLATE TIE (PL 5.1) to the CHUTE OUT (PL 5.1), and remove the PLATE TIE from the CHUTE OUT (Figure 1).
- 8) Disconnect the connector (P/J247) of the CLUTCH ASSEMBLY PH from the HARNESS ASSEMBLY TRAY 2 (PL 5.1) (Figure 1).
- 9) Remove the E-ring securing the CLUTCH ASSEMBLY PH, and remove the CLUTCH ASSEMBLY PH from the SHAFT FEED (PL 5.1) (Figure 1).

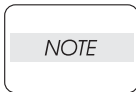
**Figure 1. PH Clutch Assembly****Replacement**

- 1) Install the CLUTCH ASSEMBLY PH to the SHAFT FEED (PL 5.1), and secure it using the E-ring.

NOTE

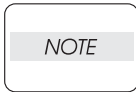
When installing, make sure that the notch of the CLUTCH ASSEMBLY PH is combined with the boss of the CHUTE OUT.

- 2) Connect P/J247 of the CLUTCH ASSEMBLY PH to the HARNESS ASSEMBLY TRAY 2 (PL 5.1). After connecting, put the connector into the space between the ribs of the CHUTE OUT (Figure 1).



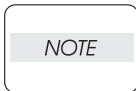
Be careful of the arranging of the harness of the CLUTCH ASSEMBLY PH.

- 3) Install the PLATE TIE (PL 5.1) to the CHUTE OUT (PL 5.1) using the 6 screws (gold tapping, 8mm) (Figure 1).
- 4) Install the 550 FEEDER ASSEMBLY (PL 5.1) (RRP5.1).
- 5) Install the 150 FEEDER ASSEMBLY (PL 4.1) (RRP4.1).
- 6) Install the CHUTE TRANSFER (PL 6.1) (RRP6.9).



Do not tighten the screw to the left side hole of the CHUTE TRANSFER.

- 7) Install the COVER REAR (PL 1.1) (RRP1.1).

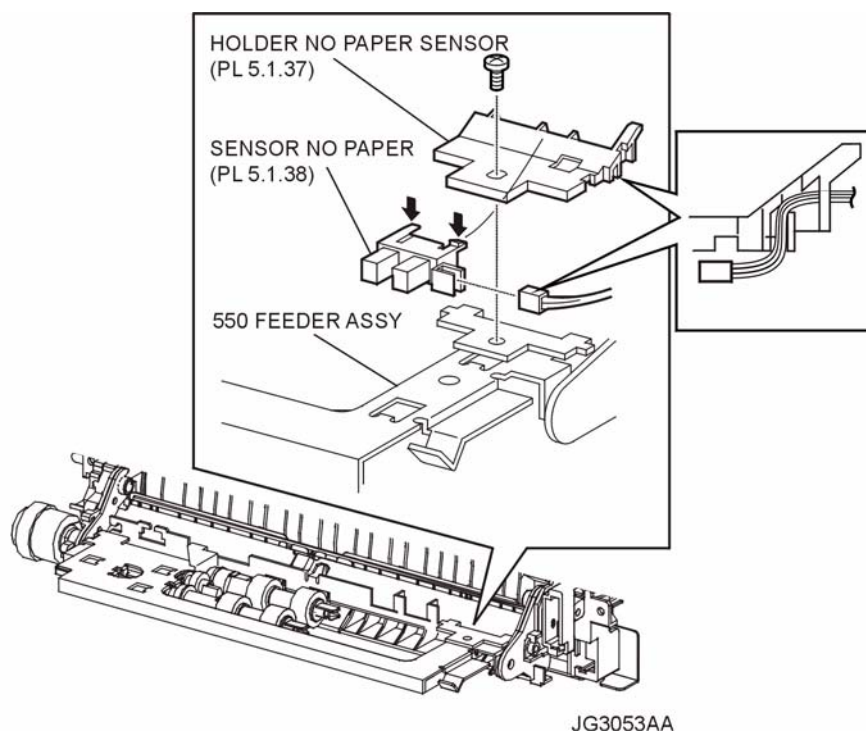


There are 2 kinds of screws, make sure they are installed correctly.

- 8) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 9) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP5.6 SENSOR NO PAPER (PL 5.1.38)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 3) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 4) Remove the CHUTE TRANSFER (PL 6.1) together with the BTR ASSEMBLY (RRP6.9).
- 5) Remove the 150 FEEDER ASSEMBLY (PL 4.1) (RRP4.1).
- 6) Remove the screw (gold, 6mm) securing the HOLDER NO PAPER SENSOR (PL 4.1) (Figure 1).
- 7) Remove the HOLDER NO PAPER SENSOR from the 550 FEEDER ASSEMBLY.
- 8) Release the hooks securing the SENSOR NO PAPER to the HOLDER NO PAPER SENSOR, and remove the SENSOR NO PAPER (Figure 1).
- 9) Disconnect the HARNESS ASSEMBLY TRAY 2 (PL 5.1) from the connector (P/J246) of the SENSOR NO PAPER.

**Figure 1. No Paper Sensor****Replacement**

- 1) Connect the HARNESS ASSEMBLY TRAY 2 (PL 5.1) to the connector (P/J246) of the SENSOR NO PAPER.
- 2) Install the SENSOR NO PAPER to the HOLDER NO PAPER SENSOR (PL 4.1), and secure it using hooks (Figure 1).
- 3) Put the wires of the HARNESS ASSEMBLY TRAY 2 to the notch of the HOLDER NO PAPER SENSOR as shown in the figure.
- 4) Install the HOLDER NO PAPER SENSOR to the 550 FEEDER ASSEMBLY using the screw (gold, 6mm).

NOTE

After tightening the screw, make sure that the wires of the HARNESS ASSEMBLY TRAY 2 are not pinched.

- 5) Install the 150 FEEDER ASSEMBLY (PL 4.1) (RRP4.1).

- 6) Install the CHUTE TRANSFER (PL 6.1) (RRP6.9).

NOTE

Do not tighten the screw to the left side hole of the CHUTE TRANSFER.

- 7) Install the COVER REAR (PL 1.1) (RRP1.1).

NOTE

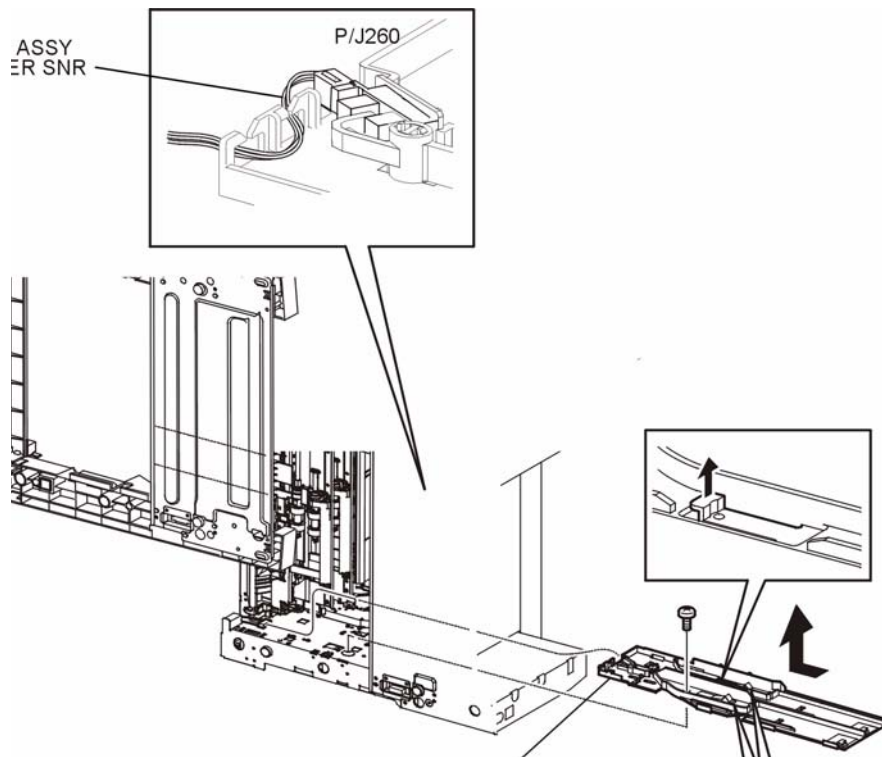
There are 2 kinds of screws, make sure they are installed correctly.

- 8) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).

- 9) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP5.7 GUIDE TRAY RIGHT (PL 5.1)**Removal**

- 1) Remove the EP CARTRIDGE and Paper Cassettes.
- 2) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 3) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 4) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 5) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 6) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 7) Remove the COVER EXIT 500 (PL 1.1). (RRP7.1)
- 8) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 9) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 10) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 11) Place the printer down on its right side.
- 12) Disconnect the connector (P/J260) of the HARNESS ASSEMBLY LOW PAPER SNR from the GUIDE TRAY RIGHT (Figure 1).
- 13) Remove the screw (silver, 6mm) securing the GUIDE TRAY RIGHT to the frame (Figure 1).
- 14) Lift up the hook of the GUIDE TRAY RIGHT, and shift it in the direction of the arrow. Then, remove the GUIDE TRAY RIGHT from the frame (Figure 1).

**Figure 1. Right Tray Guide**

Replacement

- 1) Shift the GUIDE TRAY RIGHT in the opposite direction of the arrow to install it to the frame, and secure it using the screw (silver, 6mm).

NOTE

When installing the GUIDE TRAY RIGHT, make sure the installing position of the PLATE CST LOCK (PL 5.1) is in the position shown (Figure 1) (NOTE).

- 2) Connect the connector (P/J260) of the HARNESS ASSEMBLY LOW PAPER SNR to the GUIDE TRAY RIGHT (Figure 1).
- 3) Return the printer to the normal use state.
- 4) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 5) Install the COVER TOP (PL 1.1) (RRP1.4).
- 6) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 8) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 9) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 10) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 11) Install the COVER REAR (PL 1.1) (RRP1.1).

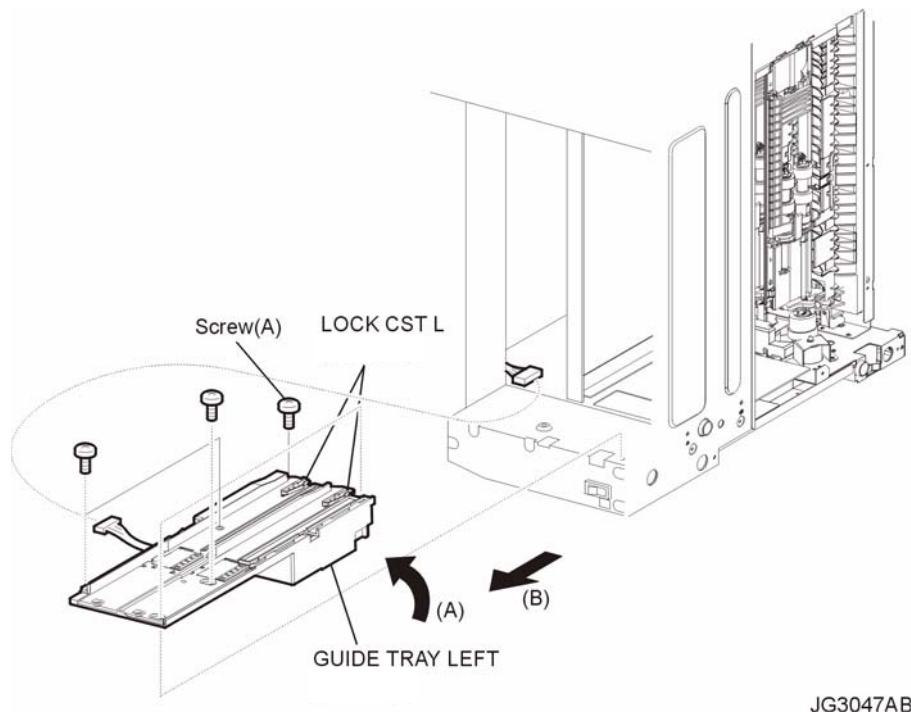
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 12) Install the COVER REAR 500 (PL 7.1) (RRP7.9).
- 13) Install the EP CARTRIDGE and Paper Cassettes.

RRP5.8 GUIDE TRAY LEFT (PL 7.1)**Removal**

- 1) Remove the EP CARTRIDGE and Paper Cassettes.
- 2) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 3) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 4) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 5) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 6) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 7) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 8) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 9) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 10) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 11) Place the printer down on its left side.
- 12) Disconnect the HARNESS ASSEMBLY LVPS (PL 9.1) from the connector (P/J1821) of the GUIDE TRAY LEFT (Figure 1).
- 13) Remove the 6 screws (gold tapping, 8mm x 1, gold, 6mm x 5) securing the GUIDE TRAY LEFT to the frame (Figure 1).
- 14) Shift the GUIDE TRAY LEFT in the direction of the arrows (A) and (B), and remove it from the frame (Figure 1).

**Figure 1. Left Tray Guide****Replacement**

- 1) Shift the GUIDE TRAY LEFT in the opposite direction of the arrows (A) and (B), and install it to the frame.
- 2) Install the GUIDE TRAY LEFT using the 6 screws (gold tapping, 8mm x 1, gold, 6mm x 5).

NOTE

Be sure to tighten the screw (gold tapping, 8mm) shown as "Screw (A)" (Figure 1).

- 3) Connect the connector (P/J1821) of the GUIDE TRAY LEFT to the HARNESS ASSEMBLY LVPS (PL 9.1) (Figure 1).
- 4) Return the printer to the normal use state.
- 5) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 6) Install the COVER TOP (PL 1.1) (RRP1.4).
- 7) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 9) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 10) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 11) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 12) Install the COVER REAR (PL 1.1) (RRP1.1).

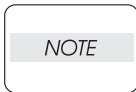
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 13) Install the COVER REAR 500 (PL 7.1) (RRP7.9).
- 14) Install the EP CARTRIDGE and Paper Cassettes.

RRP5.9 SENSOR LOW PAPER (PL 5.1.4)**Removal**

- 1) Remove the EP CARTRIDGE and Paper Cassettes.
- 2) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Place the printer down on its right side.



Be careful not to scratch the cover, and do not drop the printer.

- 5) Disconnect the connector (P/J260) of the HARNESS ASSEMBLY LOW 1 (PL 5.1) from the SENSOR (Figure 1).
- 6) Release the hooks of the SENSOR, and remove it from the GUIDE TRAY RIGHT (PL 5.1) (Figure 1).

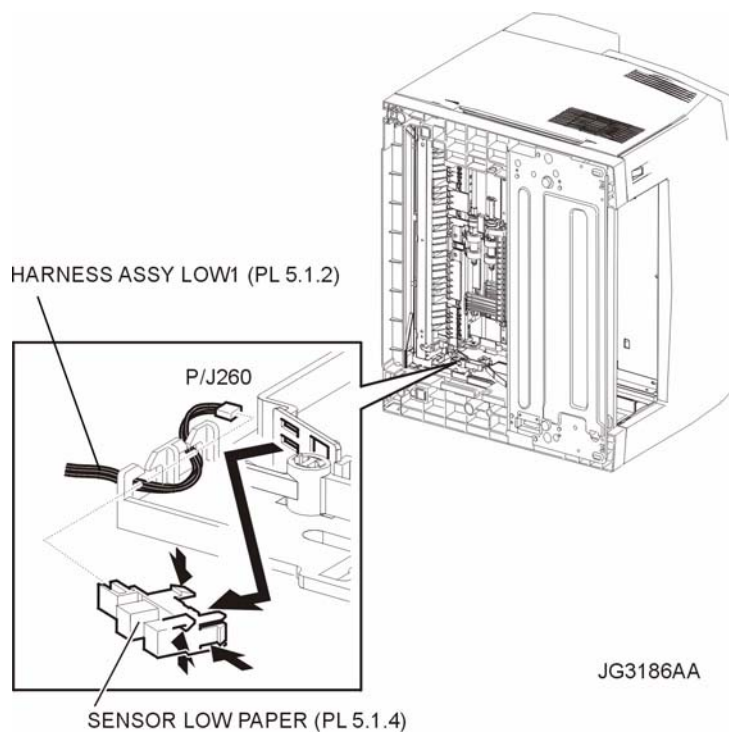


Figure 1. Low Paper Sensor

Replacement

- 1) Install the SENSOR LOW PAPER to the GUIDE TRAY RIGHT (PL 5.1), and secure it with hooks (Figure 1).
- 2) Connect the connector (P/J260) of the HARNESS ASSEMBLY LOW 1 (PL 5.1) to the SENSOR (Figure 1).
- 3) Return the printer to the normal use state.
- 4) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 5) Install the COVER REAR 500 (PL 7.1) (RRP7.9).
- 6) Install the EP CARTRIDGE and Paper Cassettes.

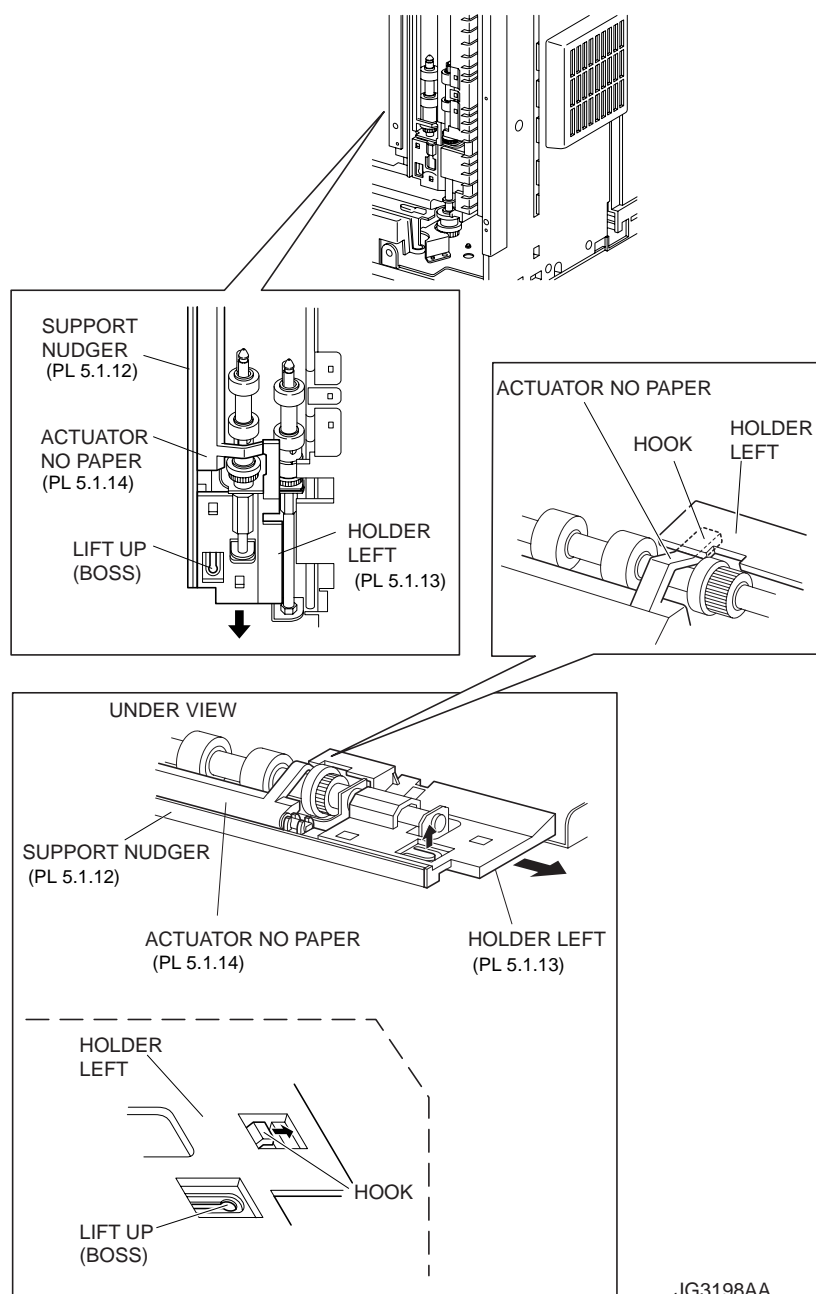
RRP5.10 ACTUATOR NO PAPER (PL 5.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 3) Place the printer down on its left side.

NOTE

Be careful not to scratch the cover, and do not drop the printer.

- 4) Open the COVER OPEN (PL 1.1).
- 5) While lifting up the boss of the HOLDER LEFT (PL 5.1) at the back of the 550 FEEDER ASSEMBLY, shift the HOLDER LEFT in the direction of the arrow to remove 3 hooks (Figure 1).
- 6) Remove the HOLDER LEFT from the SUPPORT NUDGER (PL 5.1) (Figure 1). At the same time, the ACTUATOR NO PAPER is removed.



JG3198AA

Figure 1. No Paper Actuator

Replacement

- 1) Install the HOLDER LEFT (PL 5.1) and ACTUATOR NO PAPER to the SUPPORT NUDGER (PL 5.1).

NOTE

Be sure to install the shafts on both ends of the ACTUATOR NO PAPER into the HOLDER LEFT and SUPPORT NUDGER.

NOTE

Assemble the hook of the ACTUATOR NO PAPER to the HOLDER LEFT as shown (Figure 1).

- 2) Move the HOLDER LEFT in the opposite direction of the arrow, and secure it to the 550 FEEDER ASSEMBLY with the 3 hooks (Figure 1).

NOTE

After installing, move the ACTUATOR NO PAPER with a finger, and make sure that the ACTUATOR NO PAPER operates smoothly.

- 3) Return the printer to the normal use state.
- 4) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 5) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

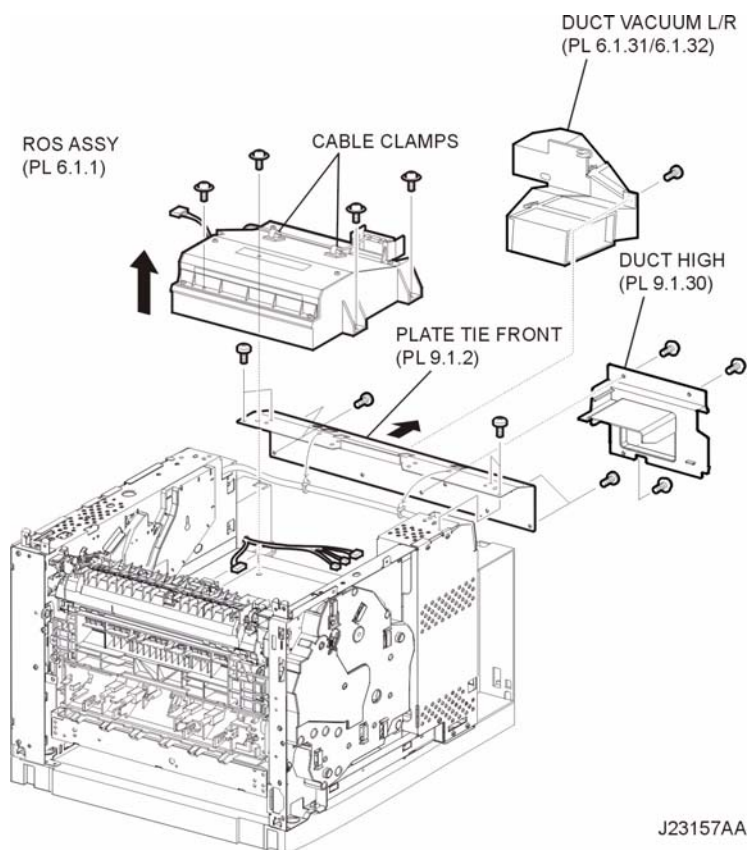
RRP6. Xerographics

RRP6.1 ROS ASSEMBLY (PL 6.1)**NOTE**

When performing the ROS ASSEMBLY removal and/or installation, be sure to perform the operation on a level and smooth work surface. If the operation is performed on a rough and/or inclined surface, the ROS ASSEMBLY will be out of alignment.

Removal

- 1) Remove the COVER REAR 500 (PL 7.2) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 8) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 9) Remove the DUCT FRONT (PL 6.1) (RRP6.2).
- 10) Remove the 3 screws (silver with flange, 8mm) securing the DUCT HIGH (PL 9.1), and remove the DUCT HIGH (Figure 1).
- 11) Remove the screw (silver with flange, 8mm) securing the DUCT VACUUM L/R (PL 6.1), and release the hooks of the DUCT VACUUM L/R, and remove the DUCT VACUUM L/R.
- 12) Release the 2 clamps holding the harnesses, from the PLATE TIE FRONT (PL 9.1) (Figure 1).
- 13) Remove the 8 screws (silver, 6mm) securing the PLATE TIE FRONT to the frame, and remove the PLATE TIE FRONT (Figure 1).
- 14) Release the 2 clamps holding the harnesses, from the ROS ASSEMBLY (Figure 1).
- 15) Disconnect 4 connectors of the HARNESS ASSEMBLY ROS (PL 6.1) (Figure 1).



J23157AA

Figure 1. ROS Assembly

NOTE

The printed circuit board on the ROS ASSEMBLY is fragile, therefore, be sure to hold it when disconnecting the connectors (Figure 1).

- 16) Remove the 4 screws (black with flange, 8mm) securing the ROS ASSEMBLY to the frame.

NOTE

Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 17) Remove the ROS ASSEMBLY.

Replacement

- 1) Install the ROS ASSEMBLY to the frame using the 4 screws (black with flange, 8mm).

NOTE

Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 2) Connect the connectors of the HARNESS ASSEMBLY ROS to the printed circuit board on the ROS ASSEMBLY.

NOTE

The printed circuit board on the ROS ASSEMBLY is fragile, then, be sure to hold it with hand when connecting the connectors.

- 3) Secure the harness with the 2 cable clamps on the ROS ASSEMBLY.
- 4) Install the PLATE TIE FRONT (PL 9.1) to the frame using the 8 screws (silver, 6mm) and tighten firmly.

NOTE

Be sure to perform this operation on a level and smooth work space.

- 5) Secure the harness to the PLATE TIE FRONT using the 2 clamps.
- 6) Secure the DUCT VACUUM L/R (PL 6.1/PL 8.1.31) using the screw (silver with flange, 8mm).
- 7) Secure the DUCT HIGH (PL 9.1) using the 3 screws (silver with flange, 8mm).
- 8) Install the DUCT FRONT (PL 6.1) (RRP6.2).
- 9) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Install the COVER TOP (PL 1.1) (RRP1.4).
- 11) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 12) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 13) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 14) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 15) Install the COVER REAR (PL 1.1) (RRP1.1).

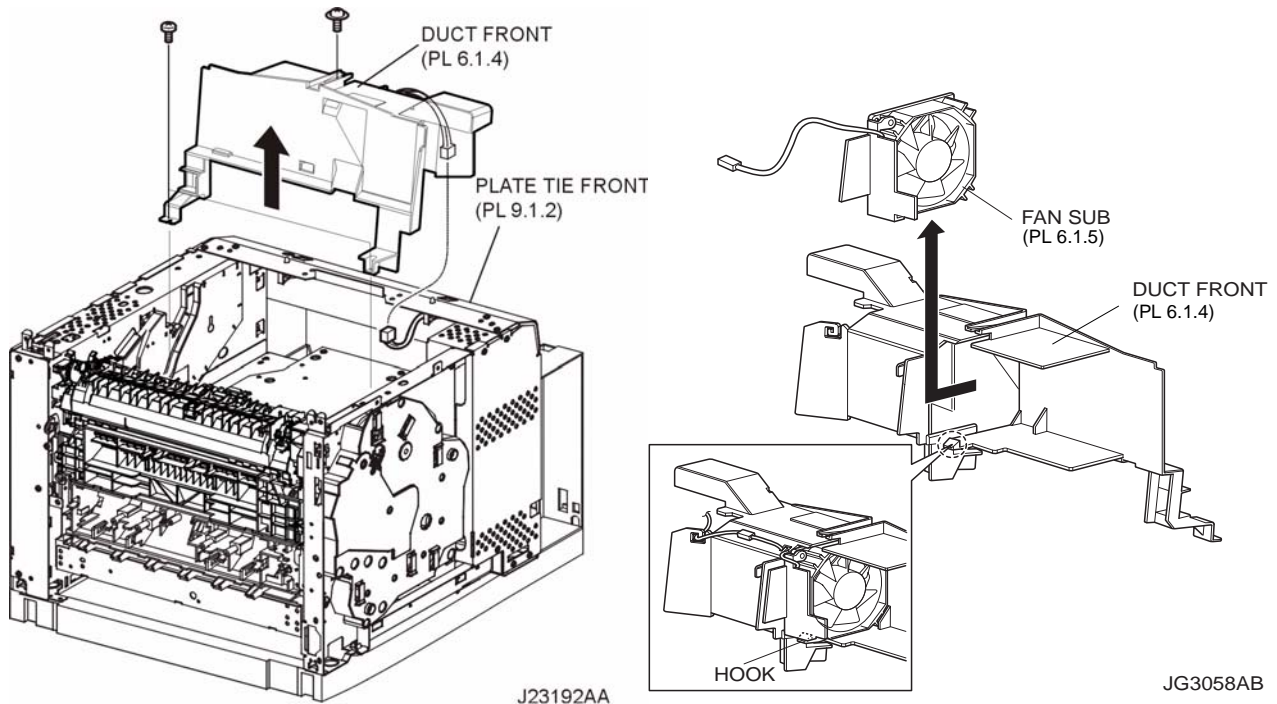
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 16) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP6.2 DUCT FRONT (PL 6.1), FAN SUB (PL 6.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 8) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 9) Disconnect the connector (P/J270) of the FAN SUB from the HARNESS ASSEMBLY LVPS (PL 9.1) (Figure 1).
- 10) Remove the 3 screws (silver tapping with flange, 8mm x 1, gold tapping, 8mm x 2) securing the DUCT FRONT (Figure 1).
- 11) Remove the DUCT FRONT attached with the FAN SUB from the frame by moving it in the direction of the arrow (Figure 1).
- 12) Release the hook securing the FAN SUB to the DUCT FRONT, and remove the FAN SUB.

**Figure 1. Front Duct & Sub Fan****Replacement**

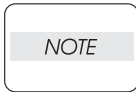
- 1) Install the FAN SUB to the DUCT FRONT, and secure it with the hook.

NOTE

When installing the FAN SUB to the DUCT FRONT, be sure to install the FAN SUB so that the label is facing inside and the harness is in the place shown (Figure 1).

- 2) Install the DUCT FRONT attached with the FAN SUB to the frame by moving the opposite direction of the arrow shown (Figure 1).
- 3) Install the DUCT FRONT to the frame using the 3 screws (silver tapping with flange, 8mm x1, gold tapping, 8mm x 2) (Figure 1).

- 4) Connect the connector (P/J270) of the FAN SUB to the HARNESS ASSEMBLY LVPS (PL 9.1).
- 5) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 6) Install the COVER TOP (PL 1.1) (RRP1.4).
- 7) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 9) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 10) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 11) Install the COVER REAR (PL 1.1) (RRP1.1).



There are 2 kinds of screws, make sure they are installed correctly.

- 12) Install the COVER REAR 500 (PL 7.2) (RRP7.9).

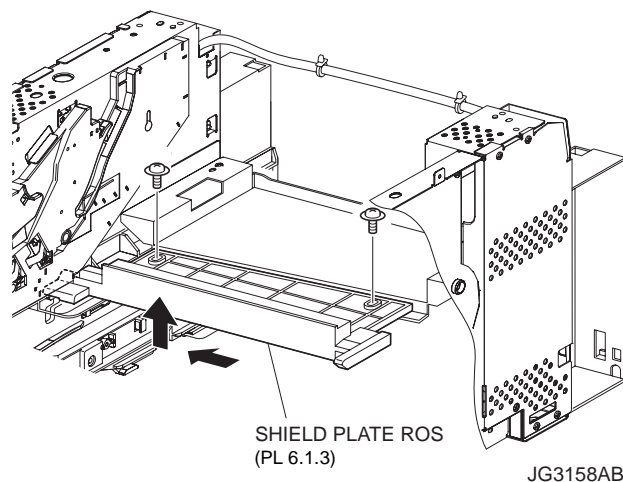
RRP6.3 SHIELD PLATE ROS (PL 6.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 8) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 9) Remove the DUCT FRONT (PL 6.1) (RRP6.2).
- 10) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 11) Remove the ROS ASSEMBLY (PL 6.1) (RRP6.1)

NOTE

Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 12) Remove the 2 screws (black with flange, 8mm) securing the SHIELD PLATE ROS to the frame (Figure 1).
- 13) Move the SHIELD PLATE ROS in the direction of the arrows to remove (Figure 1).

**Figure 1. ROS Shield Plate****Replacement**

- 1) Install the SHIELD PLATE ROS by moving it in the opposite direction of the arrows (Figure 1).
- 2) Secure the SHIELD PLATE ROS using the 2 screws (black with flange, 8mm) to the frame (Figure 1).
- 3) Install the ROS ASSEMBLY (PL 6.1) (RRP6.1).

NOTE

Be careful not to drop or strike the ROS Assembly with any tools or other objects.

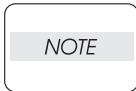
- 4) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 5) Install the DUCT FRONT (PL 6.1) (RRP6.2).
- 6) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 7) Install the COVER TOP (PL 1.1) (RRP1.4).
- 8) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).

9) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).

10) Install the COVER RIGHT (PL 1.1) (RRP1.2).

11) Install the COVER LEFT (PL 1.1) (RRP1.3).

12) Install the COVER REAR (PL 1.1) (RRP1.1).



There are 2 kinds of screws, make sure they are installed correctly.

13) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

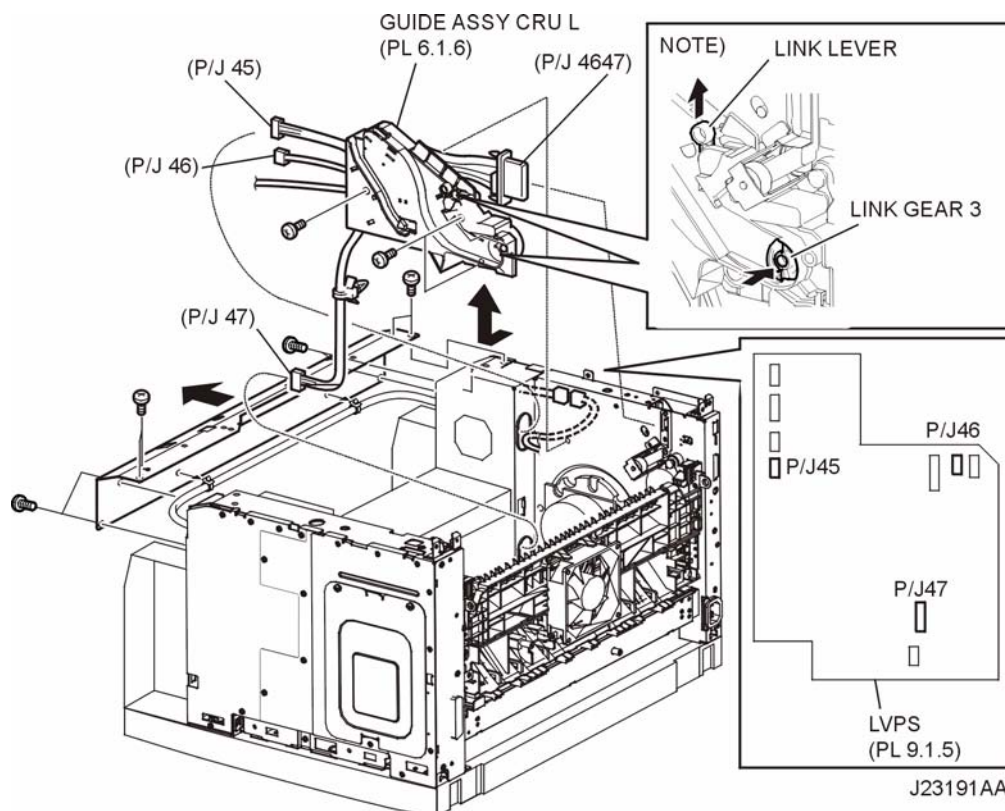
RRP6.4 GUIDE CRU LEFT (PL 6.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 8) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 9) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 10) Remove the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 11) Remove the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 12) Remove the DUCT FRONT (PL 6.1) (RRP6.2).
- 13) Remove the ROS ASSEMBLY (PL 6.1) (RRP6.1).

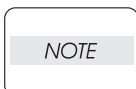
NOTE

Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 14) Remove the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 15) While lifting up the 150 FEEDER ASSEMBLY, remove the MOTOR COVER (PL 8.1) (RRP8.1).
- 16) Remove the SHIELD PLATE LVPS (PL 9.1) (RRP9.1).
- 17) Remove the connector (P/J46 and P/J47) of the HARNESS ASSEMBLY FUSER (PL 6.1) from the frame (Figure 1).
- 18) Remove the harness clamp holding the HARNESS ASSEMBLY FUSER attached to the GUIDE CRU LEFT to the frame (Figure 1).

**Figure 1. Left CRU Guide**

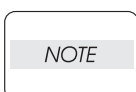
- 19) Disconnect the connector (P/J141) of the INTERLOCK S/W 5V from the HARNESS ASSEMBLY LVPS (PL 9.1) (Figure 1).
- 20) Disconnect the connector (P/J45) of the INTERLOCK S/W 24V from the LVPS (PL 9.1.5) (Figure 1).
- 21) Disconnect the connectors (P/J46 and P/J47) of the HARNESS ASSEMBLY FUSER from the LVPS (Figure 1).
- 22) Remove the 3 screws (gold, 6mm) securing the GUIDE CRU LEFT to the frame (Figure 1).
- 23) Remove the GUIDE CRU LEFT from the frame.



When removing GUIDE CRU LEFT, pressing LINK GEAR 3 in the direction of the arrow helps to remove GUIDE CRU LEFT easily.

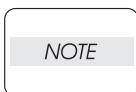
Replacement

- 1) Install the GUIDE CRU LEFT to the frame.



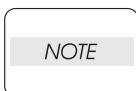
When installing, make sure that the LEVER LINK (PL 6.1) is attached to the GUIDE CRU LEFT (Figure 1).

- 2) Install the GUIDE CRU LEFT to the frame using the 3 screws (gold, 6mm).



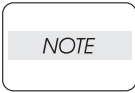
After installing the GUIDE CRU LEFT, touch the LINK GEAR 3 with your finger. Make sure that your finger can feel the LINK GEAR 3 move inward, when the LEVER LINK is pulled up.

- 3) Connect the connectors (P/J46 and P/J47) of the HARNESS ASSEMBLY FUSER to the LVPS (PL 9.1.5).
- 4) Connect the connector (P/J45) of the INTERLOCK S/W 24V to the LVPS.
- 5) Connect the connector (P/J141) of the INTERLOCK S/W 5V to the HARNESS ASSEMBLY LVPS (PL 9.1).
- 6) Secure the HARNESS ASSEMBLY FUSER (PL 6.1) attached to the GUIDE CRU LEFT to the frame using harness clamp.
- 7) Install the connector (P/J46 and P/J47) of the HARNESS ASSEMBLY FUSER to the frame.
- 8) Install the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 9) While lifting up the 150 FEEDER ASSEMBLY, install the MOTOR COVER (PL 8.1) (RRP8.1).
- 10) Install the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 11) Install the ROS ASSEMBLY (PL 6.1) (RRP6.1).



Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 12) Install the DUCT FRONT (PL 6.1) (RRP6.2).
- 13) Install the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 14) Install the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 15) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 16) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 17) Install the COVER TOP (PL 1.1) (RRP1.4).
- 18) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 19) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 20) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 21) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 22) Install the COVER REAR (PL 1.1) (RRP1.1).

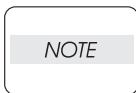


There are 2 kinds of screws, make sure they are installed correctly.

23) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP6.5 INTERLOCK S/W 24V, INTERLOCK S/W 5V (PL 6.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 5) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 6) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 7) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 9) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Remove the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 11) Remove the DUCT FRONT (PL 6.1) (RRP6.2).
- 12) Remove the ROS ASSEMBLY (PL 6.1) (RRP6.1).



Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 13) Remove the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 14) Remove the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 15) Remove the MOTOR COVER (PL 8.1) (RRP8.1).
- 16) Remove the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 17) Remove the GUIDE CRU LEFT (PL 6.1) (RRP6.4).
- 18) Remove the COVER GUIDE CRU (PL 6.1) and HARNESS ASSEMBLY FUSER (PL 6.1) from the GUIDE CRU LEFT (RRP6.7).
- 19) Remove the 2 screws (gold tapping, 6mm) securing the HOLDER I/L SW2 (PL 6.1) to the GUIDE CRU LEFT (Figure 1).
- 20) Remove the HOLDER I/L SW2 (Figure 1).
- 21) Release the hook of the HOLDER I/L SW1 (PL 6.1), and remove the INTERLOCK S/W 24V and INTERLOCK S/W 5V (Figure 1).

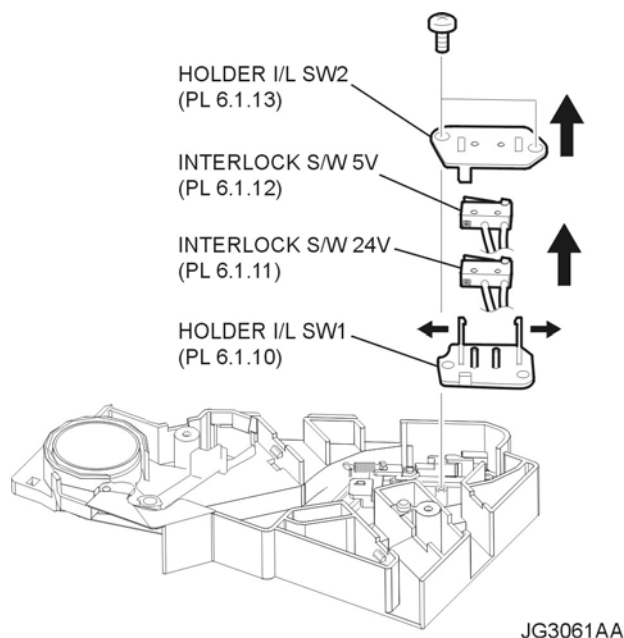


Figure 1. 5 Volt & 24 Volt Interlock

Replacement

- 1) Install the INTERLOCK S/W 24V and INTERLOCK S/W 5V to the HOLDER I/L SW1 (PL 6.1) and secure them with hooks (Figure 1).
- 2) Install the HOLDER I/L SW2 (PL 6.1) to the GUIDE CRU LEFT (PL 6.1) using the 2 screws (gold tapping, 6mm) (Figure 1).
- 3) Install the COVER GUIDE CRU (PL 6.1) and HARNESS ASSEMBLY FUSER (PL 6.1) to the GUIDE CRU LEFT.
- 4) Install the GUIDE CRU LEFT (RRP6.4).

NOTE

When installing, make sure that the LEVER LINK (PL 6.1.29) is attached to the GUIDE CRU LEFT.

NOTE

After installing the GUIDE CRU LEFT, touch the LINK GEAR 3 with your finger. Make sure that your finger can feel the LINK GEAR 3 move inward, when the LEVER LINK is pulled up.

- 5) Install the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 6) Install the MOTOR COVER (PL 8.1) (RRP1.1).
- 7) Install the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 8) Install the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 9) Install the ROS ASSEMBLY (PL 6.1) (RRP6.1).

NOTE

Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 10) Install the DUCT FRONT (PL 6.1) (RRP6.2).
- 11) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 12) Install the COVER TOP (PL 1.1) (RRP1.4).
- 13) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 14) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 15) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 16) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 17) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 18) Install the COVER REAR (PL 1.1) (RRP1.1).

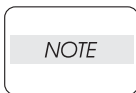
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 19) Install the COVER REAR 500 (PL 7.1) (RRP7.9).
- 20) Install the BTR ASSEMBLY (PL 6.1) (RRP6.9).

RRP6.6 LEVER GUIDE (PL 6.1.14)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 5) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 6) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 7) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 9) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Remove the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 11) Remove the DUCT FRONT (PL 6.1) (RRP6.2).
- 12) Remove the ROS ASSEMBLY (PL 6.1) (RRP6.1).



Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 13) Remove the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 14) Remove the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 15) Remove the MOTOR COVER (PL 8.1) (RRP8.1).
- 16) Remove the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 17) Remove the GUIDE CRU LEFT (PL 6.1) (RRP6.4).
- 18) Remove the COVER GUIDE CRU (PL 6.1) and HARNESS ASSEMBLY FUSER (PL 6.1) from the GUIDE CRU LEFT (RRP6.7).
- 19) Remove the INTERLOCK S/W 24V (PL 6.1) and INTERLOCK S/W 5V (PL 6.1) (RRP6.5).
- 20) Remove the SPRING SL (PL 6.1) from the GUIDE CRU LEFT (Figure 1).
- 21) Remove the SPACER SS (PL 6.1) from the GUIDE CRU LEFT (Figure 1).
- 22) Remove the GUIDE SL (PL 6.1) from the GUIDE CRU LEFT (Figure 1).
- 23) Remove the LEVER GUIDE from the GUIDE CRU LEFT (Figure 1).

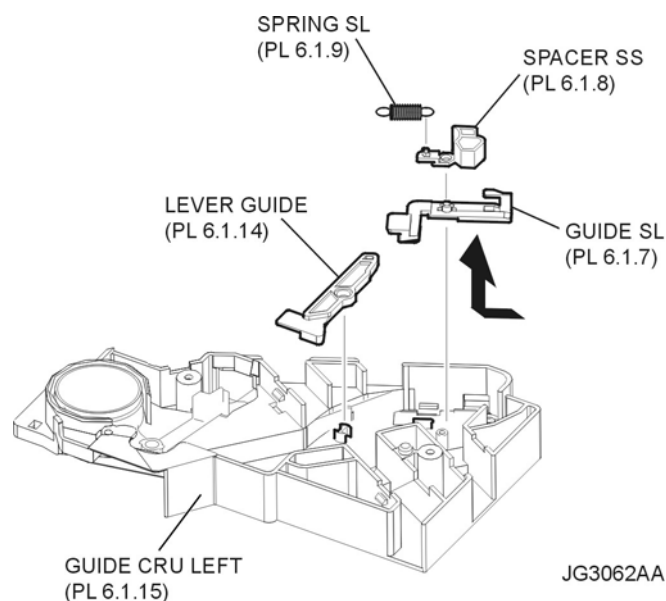


Figure 1. Guide Lever

Replacement

- 1) Install the LEVER GUIDE to the GUIDE CRU LEFT (PL 6.1) (Figure 1).
- 2) Install the GUIDE SL (PL 6.1) to the GUIDE CRU LEFT.
- 3) Install the SPACER SS (PL 6.1) to the GUIDE CRU LEFT.
- 4) Install the SPRING SL (PL 6.1) to the GUIDE CRU LEFT.
- 5) Install the INTERLOCK S/W 24V (PL 6.1) and INTERLOCK S/W 5V (PL 6.1) (RRP6.5).
- 6) Install the COVER GUIDE CRU (PL 6.1) and HARNESS ASSEMBLY FUSER (PL 6.1) (RRP6.7).
- 7) Install the GUIDE CRU LEFT (PL 6.1) (RRP6.4).

NOTE

When installing, make sure that the LEVER LINK (PL 6.1.29) is attached to the GUIDE CRU LEFT.

NOTE

After installing the GUIDE CRU LEFT, touch the LINK GEAR 3 with your finger. Make sure that your finger can feel the LINK GEAR 3 move inward, when the LEVER LINK is pulled up.

- 8) Install the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 9) Install the MOTOR COVER (PL 8.1) (RRP8.1).
- 10) Install the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 11) Install the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 12) Install the ROS ASSEMBLY (PL 6.1) (RRP6.1).

NOTE

Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 13) Install the DUCT FRONT (PL 6.1) (RRP6.2).
- 14) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 15) Install the COVER TOP (PL 1.1) (RRP1.4).
- 16) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 17) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 18) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 19) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 20) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 21) Install the COVER REAR (PL 1.1) (RRP1.1).

NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 22) Install the COVER REAR 500 (PL 7.1) (RRP7.9).
- 23) Install the BTR ASSEMBLY (PL 6.1) (RRP6.9).

RRP6.7 HARNESS ASSEMBLY FUSER (PL 6.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 5) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 6) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 7) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 9) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Remove the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 11) Remove the DUCT FRONT (PL 6.1) (RRP6.2).
- 12) Remove the ROS ASSEMBLY (PL 6.1) (RRP6.1).

NOTE

Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 13) Remove the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 14) Remove the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 15) Remove the MOTOR COVER (PL 8.1) (RRP8.1).
- 16) Remove the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 17) Remove the GUIDE CRU LEFT (PL 6.1) (RRP6.4).
- 18) Release the hooks securing the COVER GUIDE CRU (PL 6.1) to the GUIDE CRU LEFT, and remove the COVER GUIDE CRU together with the HARNESS ASSEMBLY FUSER (Figure 1).

NOTE

Be careful handling the hooks of the GUIDE CRU LEFT. They are fragile and could break if widen to much.

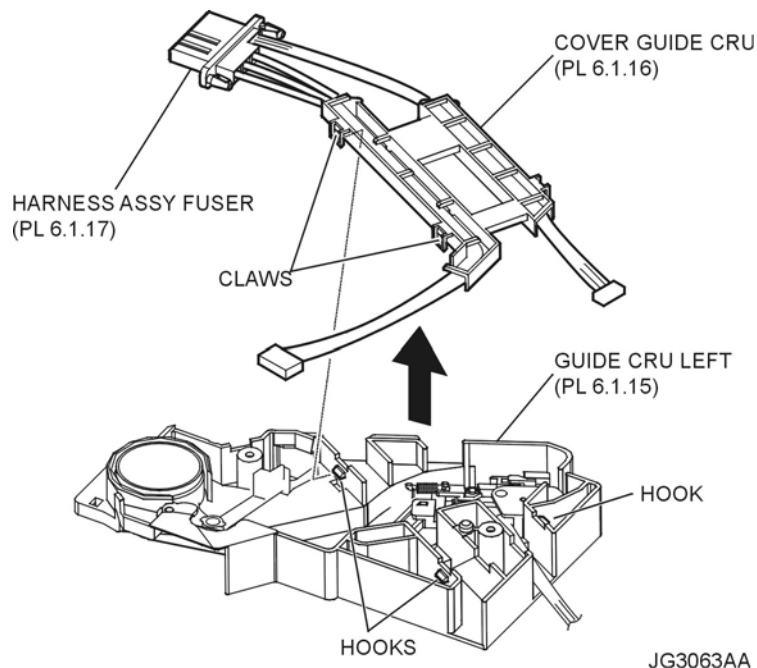


Figure 1. Fuser Harness Assembly

Replacement

- 1) Install the COVER GUIDE CRU (PL 6.1) together with the HARNESS ASSEMBLY FUSER to the GUIDE CRU LEFT (PL 6.1) (Figure 1).
- 2) Install the GUIDE CRU LEFT (PL 6.1) (RRP6.4).

NOTE

When installing, make sure that the LEVER LINK (PL 6.1.29) is attached to the GUIDE CRU LEFT.

NOTE

After installing the GUIDE CRU LEFT, touch the LINK GEAR 3 with your finger. Make sure that the LINK GEAR 3 moves inward, when the LEVER LINK is pulled up.

- 3) Install the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 4) Install the MOTOR COVER (PL 8.1) (RRP8.1).
- 5) Install the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 6) Install the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 7) Install the ROS ASSEMBLY (PL 6.1) (RRP6.1).

NOTE

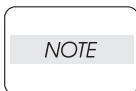
Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 8) Install the DUCT FRONT (PL 6.1) (RRP6.2).
- 9) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Install the COVER TOP (PL 1.1) (RRP1.4).
- 11) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 12) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 13) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 14) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 15) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 16) Install the COVER REAR (PL 1.1) (RRP1.1).

NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 17) Install the COVER REAR 500 (PL 7.1) (RRP7.9).
- 18) Install the BTR ASSEMBLY (PL 6.1) (RRP6.9).

RRP6.8 FUSER ASSEMBLY (PL 6.1)**Removal**

Before performing the following procedures, make sure that the FUSER ASSEMBLY has cooled.

- 1) Open the COVER REAR 500 (PL 7.1).
- 2) Push down the LEVER FUSER LH (PL 6.1) and LEVER FUSER RH (PL 6.1) in the direction of the arrow to release the lock of the FUSER ASSEMBLY (Figure 1).
- 3) Shift the FUSER ASSEMBLY in the direction of the arrow, and remove it from the printer (Figure 1).

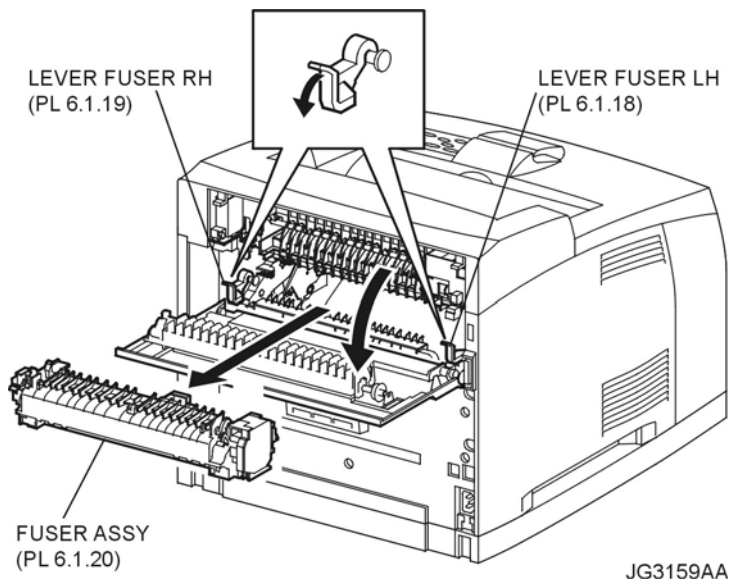


Figure 1. Fuser Assembly

Replacement

- 1) Shift the FUSER ASSEMBLY in the opposite direction of the arrow, and install it to the printer (Figure 1).
- 2) Lock the FUSER ASSEMBLY by pulling up the LEVER FUSER LH (PL 6.1) and LEVER FUSER RH (PL 6.1) (Figure 1).
- 3) Close the COVER REAR 500 (PL 7.1).

RRP6.9 BTR ASSEMBLY (PL 6.1)]**Removal**

- 1) Open the COVER OPEN (PL 1.1).
- 2) Pinch the hooks of both ends of the BTR ASSEMBLY, and remove it from the printer (Figure 1).

NOTE

Use extreme care in handling of the BTR ASSEMBLY, do not touch or damage the BTR surface.

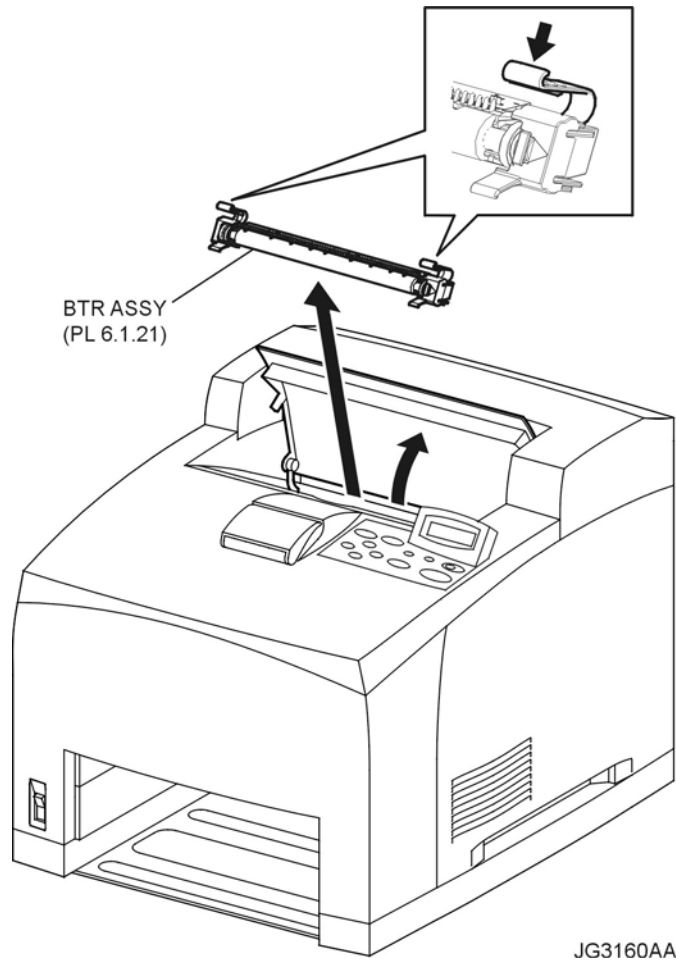


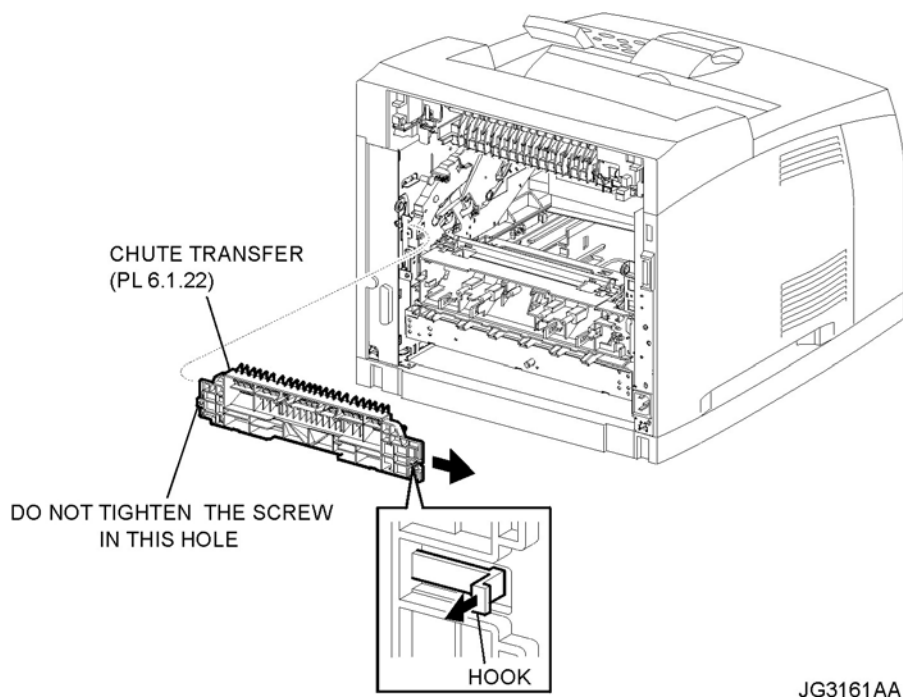
Figure 1. BTR Assembly

Replacement

- 1) Pinch the hooks of both ends of the BTR ASSEMBLY, and install it to the printer (Figure 1).
- 2) Close the COVER OPEN (PL 1.1).

RRP6.10 CHUTE TRANSFER (PL 6.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Remove the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 5) Release the hook of the CHUTE TRANSFER (Figure 1).
- 6) Shift the CHUTE TRANSFER in the direction of the arrow, and remove it from the frame (Figure 1).

**Figure 1. Transfer Chute****Replacement**

- 1) Shift the CHUTE TRANSFER in the opposite direction of the arrow to install the frame, and secure it using a hook (Figure 1).

NOTE

Do not tighten the screw on the left side of the CHUTE TRANSFER.

- 2) Install the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 3) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Install the COVER REAR (PL 1.1) (RRP1.1).

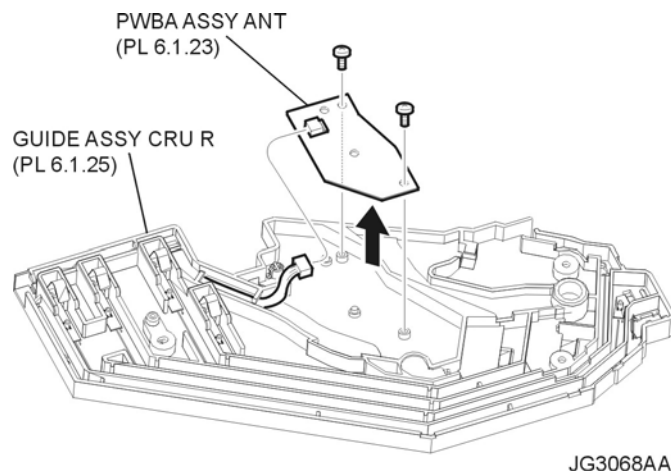
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 5) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP6.11 PWBA ASSEMBLY ANT (PL 6.1.23)**Removal**

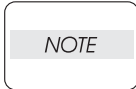
- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 5) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 6) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 7) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 9) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Remove the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 11) Remove the DUCT FRONT (PL 6.1) (RRP6.2).
- 12) Remove the GUIDE ASSEMBLY CRU R (PL 6.1) (RRP6.12)
- 13) Remove the 2 screws (gold tapping, 6mm) securing the PWBA ASSEMBLY ANT to the GUIDE ASSEMBLY CRU R (Figure 1).
- 14) Remove the PWBA ASSEMBLY ANT (Figure 1).
- 15) Disconnect the harness connector from the connector (P/J150) on the PWBA ASSEMBLY ANT (Figure 1).

**Figure 1. ANT PWBA Assembly****Replacement**

- 1) Connect the harness connector to the connector (P/J150) on the PWBA ASSEMBLY ANT (Figure 1).
- 2) Install the PWBA ASSEMBLY ANT to the GUIDE ASSEMBLY CRU R (PL 6.1) using the 2 screws (gold tapping, 6mm) (Figure 1).
- 3) Install the GUIDE ASSEMBLY CRU R (PL 6.1) (RRP6.12).
- 4) Install the DUCT FRONT (PL 6.1) (RRP6.2).
- 5) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 6) Install the COVER TOP (PL 1.1) (RRP1.4).
- 7) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 9) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 10) Install the COVER LEFT (PL 1.1) (RRP1.3).

11) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).

12) Install the COVER REAR (PL 1.1) (RRP1.1).



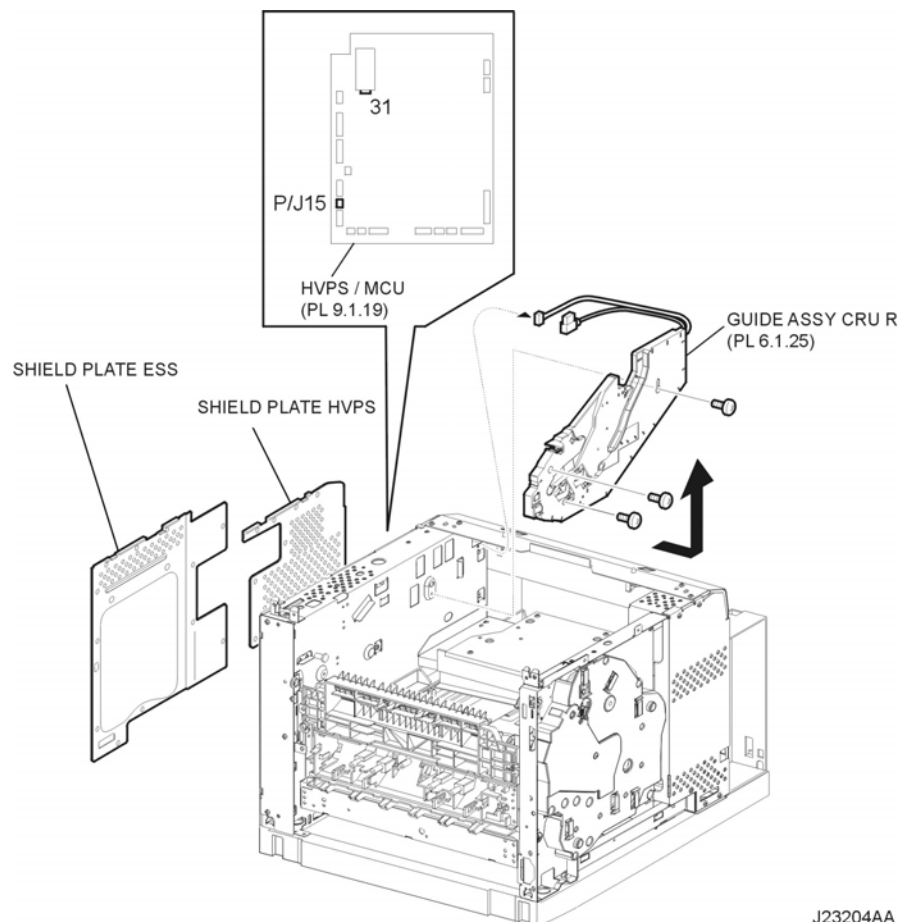
There are 2 kinds of screws, make sure they are installed correctly.

13) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

14) Install the BTR ASSEMBLY (PL 6.1) (RRP6.9).

RRP6.12 GUIDE ASSEMBLY CRU R (PL 6.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 5) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 6) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 7) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 9) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Remove the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 11) Remove the SHIELD ASSEMBLY ESS (PL 9.1) (RRP9.7).
- 12) Remove the SHIELD PLATE HVPS (PL 9.1) (RRP9.9)
- 13) Remove the DUCT FRONT (PL 6.1) (RRP6.2).
- 14) Disconnect the connector (P/J31) of the GUIDE ASSEMBLY CRU R from the HVPS/MCU (PL 9.1.19) (Figure 1).
- 15) Disconnect the connector (P/J15) of the HARNESS ASSEMBLY ANT from the HVPS/MCU (Figure 1).
- 16) Remove the 3 screws (silver, 6mm) securing the GUIDE ASSEMBLY CRU R to the frame (Figure 1).
- 17) Pull out the harness of the GUIDE ASSEMBLY CRU R from the frame (Figure 1).
- 18) Remove the GUIDE ASSEMBLY CRU R.



J23204AA

Figure 1. Right CRU Guide Assembly

Replacement

- 1) Install the GUIDE ASSEMBLY CRU R.
- 2) Put the harness of the GUIDE ASSEMBLY CRU R to the hole of the frame (Figure 1).
- 3) Install the GUIDE ASSEMBLY CRU R to the frame using the 3 screws (silver, 6mm) (Figure 1).
- 4) Connect the connector (P/J15) of the HARNESS ASSEMBLY ANT to the HVPS/MCU (PL 9.1.19).
- 5) Connect the connector (P/J31) of the GUIDE ASSEMBLY CRU R to the HVPS/MCU.
- 6) Install the DUCT FRONT (PL 6.1) (RRP6.2).
- 7) Install the SHIELD PLATE HVPS (PL 9.1) (RRP9.9).
- 8) Install the SHIELD ASSEMBLY ESS (PL 9.1) (RRP9.7).
- 9) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Install the COVER TOP (PL 1.1) (RRP1.4).
- 11) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 12) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 13) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 14) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 15) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 16) Install the COVER REAR (PL 1.1) (RRP1.1).

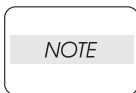
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 17) Install the COVER REAR 500 (PL 7.1) (RRP7.9).
- 18) Install the BTR ASSEMBLY (PL 6.1) (RRP6.9).

RRP6.13 LEVER LINK (PL 6.1.29), LINK GEAR 3(PL 6.1.30)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 5) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 6) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 7) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 9) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Remove the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 11) Remove the DUCT FRONT (PL 6.1) (RRP6.2).
- 12) Remove the ROS ASSEMBLY (PL 6.1) (RRP6.1).



Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 13) Remove the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 14) Remove the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 15) Remove the MOTOR COVER (PL 8.1) (RRP8.1).
- 16) Remove the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 17) Remove the GUIDE CRU LEFT (PL 6.1) (RRP6.4).
- 18) Remove the COVER GUIDE CRU (PL 6.1) and HARNESS ASSEMBLY FUSER (PL 6.1) from the GUIDE CRU LEFT (RRP6.7).
- 19) Remove the LEVER LINK and LINK GEAR 3 (Figure 1).

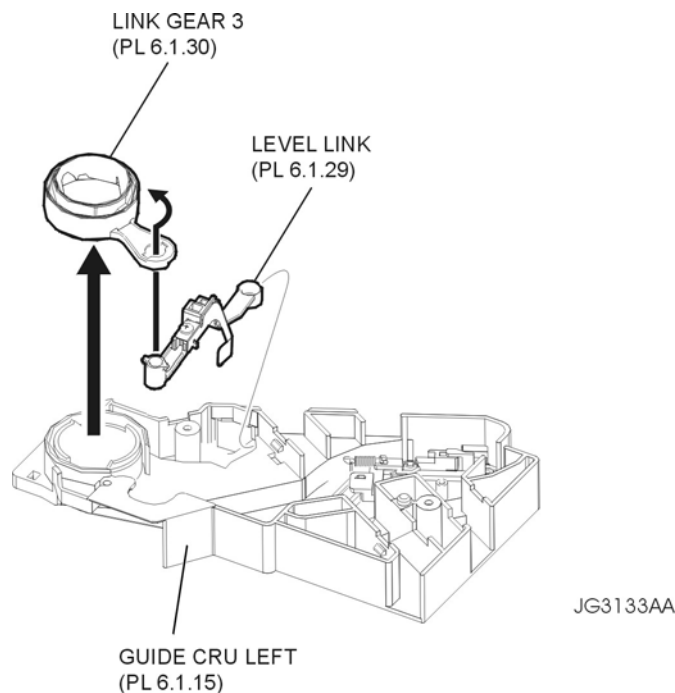


Figure 1. Link Lever & Link Gear

Replacement

- 1) Assemble the LEVER LINK and LINK GEAR 3 as shown in the figure, and install them to the GUIDE CRU LEFT (PL 6.1) (Figure 1).
- 2) Install the COVER GUIDE CRU (PL 6.1) and HARNESS ASSEMBLY FUSER (PL 6.1) to the GUIDE CRU LEFT (RRP6.7).
- 3) Install the GUIDE CRU LEFT (RRP6.4).

NOTE

When installing, make sure that the LEVER LINK (PL 6.1.29) is attached to the GUIDE CRU LEFT.

NOTE

After installing the GUIDE CRU LEFT, touch the LINK GEAR 3 with your finger. Make sure the LINK GEAR 3 moves inward, when the LEVER LINK is pulled up.

- 4) Install the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 5) Install the MOTOR COVER (PL 8.1) (RRP8.1).
- 6) Install the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 7) Install the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 8) Install the ROS ASSEMBLY (PL 6.1) (RRP6.1).

NOTE

Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 9) Install the DUCT FRONT (PL 6.1) (RRP6.2).
- 10) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 11) Install the COVER TOP (PL 1.1) (RRP1.4).
- 12) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 13) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 14) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 15) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 16) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 17) Install the COVER REAR (PL 1.1) (RRP1.1).

NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 18) Install the COVER REAR 500 (PL 7.1) (RRP7.9).
- 19) Install the BTR ASSEMBLY (PL 6.1) (RRP6.9).

RRP7. 500 Paper Exit

RRP7.1 COVER EXIT 500 (PL 1.1)

Removal

- 1) Open the COVER REAR 500 (PL 7.1).
- 2) Remove the 2 screws securing the COVER EXIT 500, and remove from the printer (Figure 1).

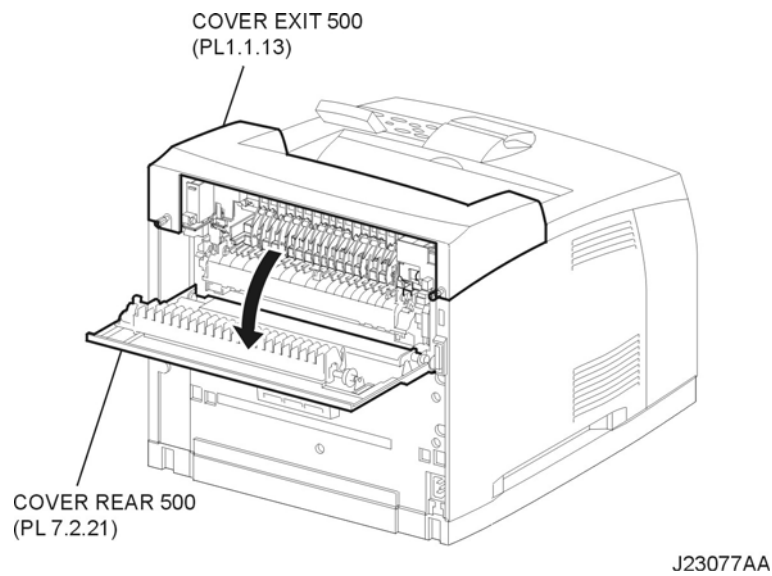


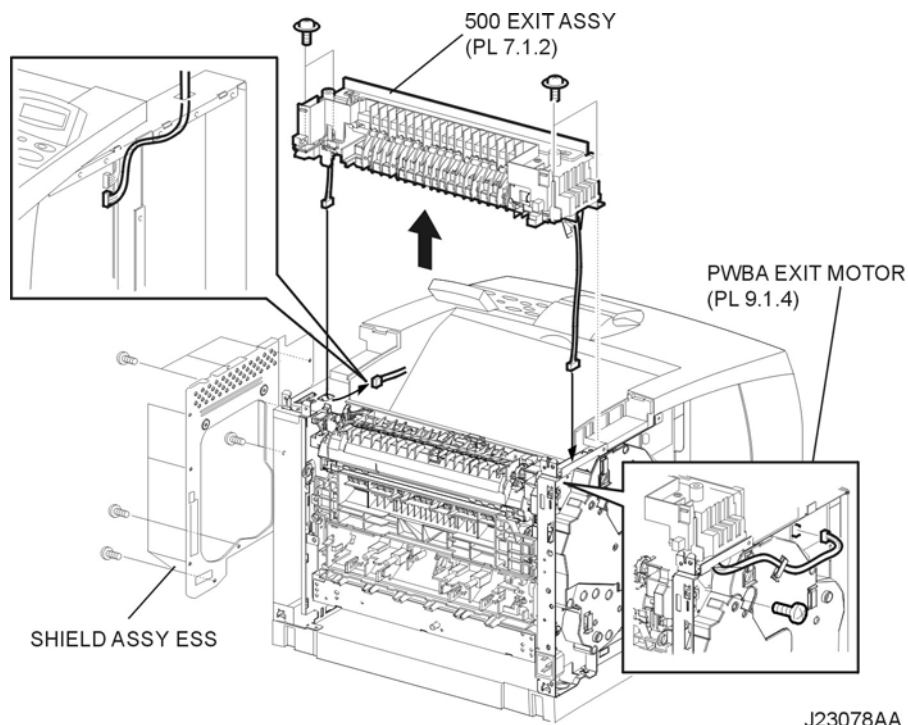
Figure 1. 500 Exit Cover

Replacement

- 1) Install the COVER EXIT 500 to the printer, and secure it with the 2 screws (Figure 1).
- 2) Close the COVER REAR 500 (PL 7.1).

RRP7.2 500 EXIT ASSEMBLY**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the SHIELD ASSEMBLY ESS (PL 9.1) (RRP9.7)
- 7) Disconnect the connector (P/J29) of the HARNESS ASSEMBLY EXIT SNR from the HVPS/MCU (PL 9.1.19) (Figure 1).
- 8) Disconnect the connector (P/J103) of the MOTOR ASSEMBLY EXIT from the PWBA EXIT MOTOR (PL 9.1.4) (Figure 1).
- 9) Remove the 5 screws (gold with spring washer,10mm,x4,silver 6mm,x1)securing the 500 EXIT ASSEMBLY to the printer (Figure 1).
- 10) Remove the 500 EXIT ASSEMBLY.

**Figure 1. 500 Exit Assembly****Replacement**

- 1) Put the harnesses of the MOTOR ASSEMBLY EXIT and SENSOR into the hole on the frame (Figure 1).
- 2) Install the 500 EXIT ASSEMBLY using the 5 screws (gold with spring washer,10mm,x4,silver 6mm,x1) (Figure 1).
- 3) Connect the connector (P/J103) of the MOTOR ASSEMBLY EXIT to the PWBA EXIT MOTOR (PL 9.1.4) (Figure 1).
- 4) Connect the connector (P/J29) of the HARNESS ASSEMBLY EXIT SNR to the HVPS/MCU (PL 9.1.19) (Figure 1).
- 5) Install the SHIELD ASSEMBLY ESS (PL 9.1) (RRP9.7).
- 6) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).

7) Install the COVER RIGHT (PL 1.1) (RRP1.2).

8) Install the COVER LEFT (PL 1.1) (RRP1.3).

9) Install the COVER REAR (PL 1.1) (RRP1.1).

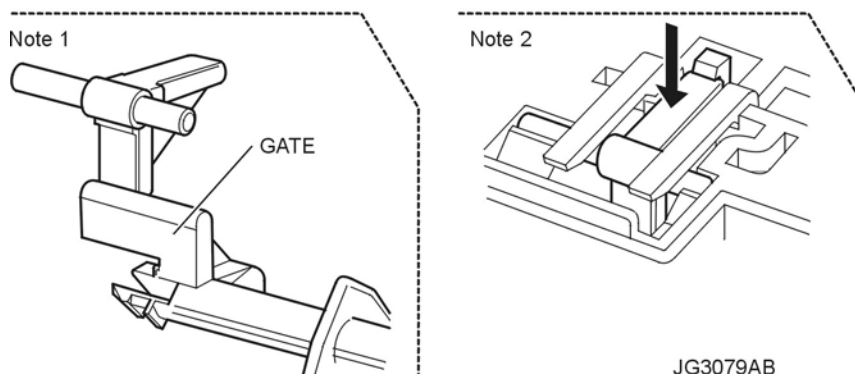
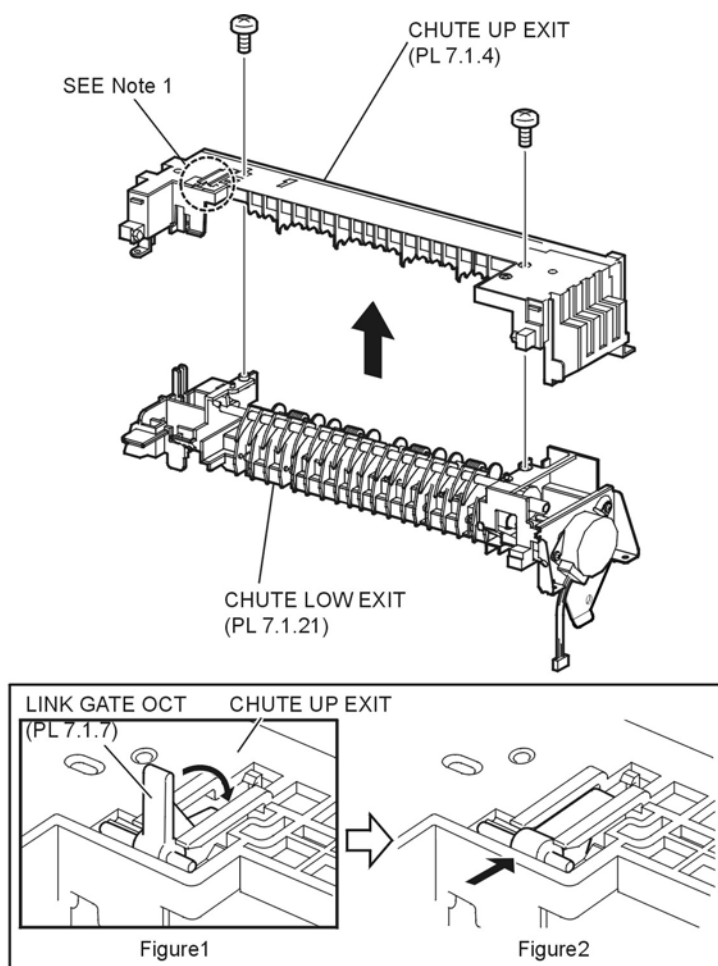
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

10) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.3 CHUTE UP EXIT, CHUTE LOW EXIT (PL 7.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the 2 screws (gold tapping, 8mm) securing the CHUTE UP EXIT to the CHUTE LOW EXIT (Figure 1).
- 8) Separate the CHUTE UP EXIT and CHUTE LOW EXIT (Figure 1).



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Figure 1. Chute Up & Low Exit

Replacement

- 1) Remove the LINK GATE OCT (PL 7.1) assembled into the removed CHUTE UP EXIT (Figure 1).
- 2) Secure the CHUTE UP EXIT to the CHUTE LOW EXIT using the 2 screws (gold tapping, 8mm) (Figure 1).
- 3) Put the LINK GATE OCT under the 2 arms of the CHUTE UP EXIT as shown (Figure 1), and turn it in the direction of the arrow.
- 4) Push the LINK GATE OCT in the direction of the arrow (shown in the area labeled figure 2) as far as it will go.

NOTE

After installing, make sure that the LINK GATE OCT is placed at the back side of the GATE. (Note1) (Figure 1)

NOTE

After installing, make sure that the tip of the LINK GATE OCT is placed under the hook of the CHUTE LOW EXIT. (Note2) (Figure 1).

NOTE

After installing, make sure that the GATE moves when the LINK GATE OCT is pushed in the direction of the arrow. (Note2) (Figure 1)

- 5) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 6) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 7) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 8) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 9) Install the COVER REAR (PL 1.1) (RRP1.1).

NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 10) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.4 ROLL EXIT (PL 7.1.)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the CHUTE UP EXIT (PL 7.1) (RRP7.3)
- 7) Release the hook of the GEAR 21 (PL 7.1), and remove it from the ROLL EXIT (Figure 1).
- 8) Release the hook of the BEARING EXIT (PL 7.1.11) on the GEAR 21 side, and lift up the ROLL EXIT, then, remove the BEARING EXIT from the ROLL EXIT (Figure 1).

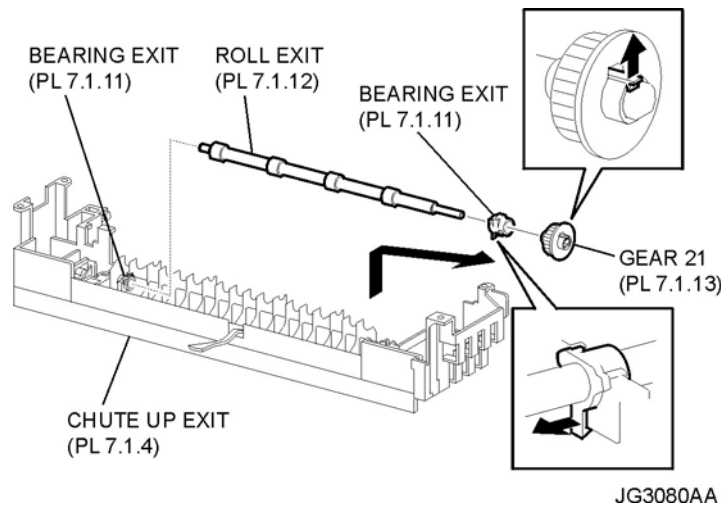
NOTE

Be careful handling the hook of the BEARING EXIT. It is fragile and could break if given excessive force.

- 9) Remove the ROLL EXIT from the other side of the BEARING EXIT by shifting the ROLL EXIT in the direction of the arrow as shown (Figure 1).

NOTE

When removing, do not touch the roller surface of the ROLL EXIT.

**Figure 1. Exit Roll****Replacement**

- 1) Install the ROLL EXIT to the BEARING EXIT (PL 7.1.11) by shifting the ROLL EXIT in the opposite direction of the arrow (Figure 1).

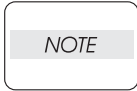
NOTE

When installing, do not touch the roller surface of the ROLL EXIT.

- 2) Put the BEARING EXIT to the ROLL EXIT on the GEAR 21 side, and install the BEARING EXIT to the CHUTE UP EXIT (PL 7.1), and then secure it with the hook (Figure 1).
- 3) Install the GEAR 21 (PL 7.1) to the ROLL EXIT, and secure it with the hook (Figure 1).
- 4) Install the CHUTE UP EXIT (RRP7.3).
- 5) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Install the COVER RIGHT (PL 1.1) (RRP1.2).

7) Install the COVER LEFT (PL 1.1) (RRP1.3).

8) Install the COVER REAR (PL 1.1) (RRP1.1).

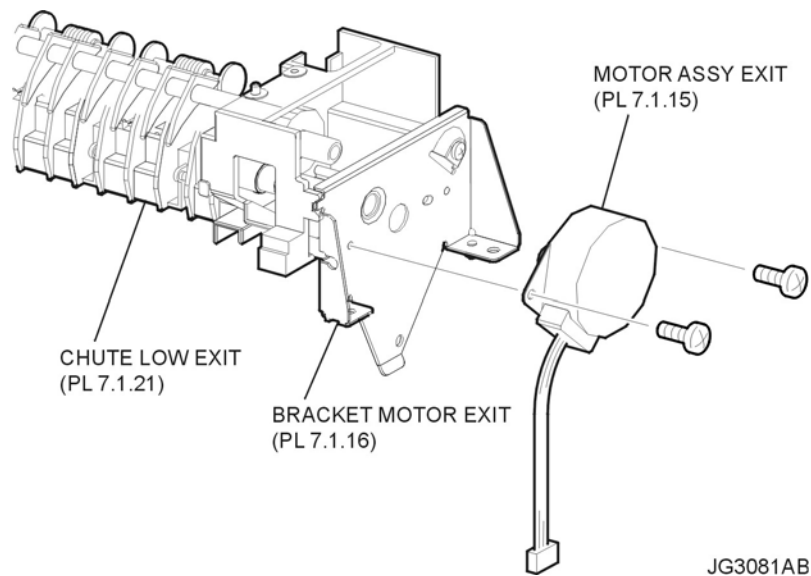


There are 2 kinds of screws, make sure they are installed correctly.

9) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.5 MOTOR ASSEMBLY EXIT (PL 7.1.15)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the CHUTE LOW EXIT (PL 7.11) (RRP7.3).
- 8) Remove the 2 screws (silver, 6mm) securing the MOTOR ASSEMBLY EXIT to the BRACKET MOTOR EXIT (PL 7.1) (Figure 1).
- 9) Remove the MOTOR ASSEMBLY EXIT (Figure 1).

**Figure 1. Exit Motor Assembly****Replacement**

- 1) Secure the MOTOR ASSEMBLY EXIT to the BRACKET MOTOR EXIT (PL 7.1) using the 2 screws (silver, 8mm) (Figure 1).
- 2) Install the CHUTE LOW EXIT (PL 7.11) (RRP7.3).
- 3) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 4) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 5) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 6) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 7) Install the COVER REAR (PL 1.1) (RRP1.1).

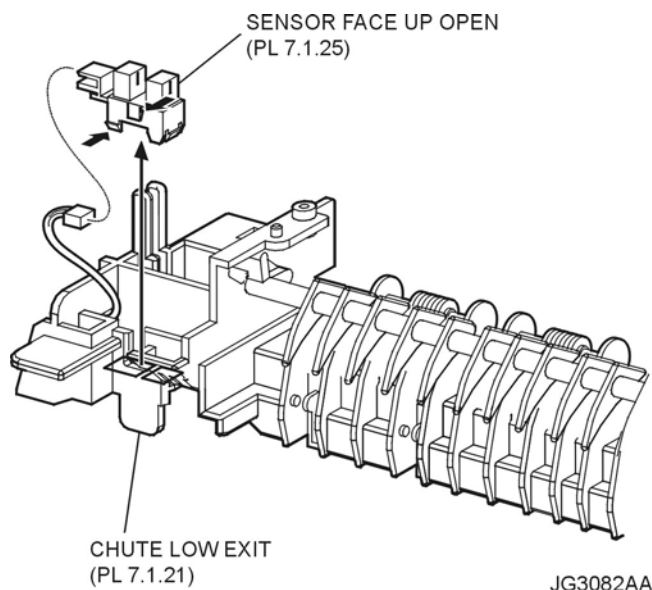
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 8) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.6 SENSOR FACE UP OPEN (PL 7.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the CHUTE UP EXIT (PL 7.1) (RRP7.3).
- 7) Disconnect the connector (P/J291) of the HARNESS ASSEMBLY EXIT SNR (PL 7.1.27) from the SENSOR FACE UP OPEN (Figure 1).
- 8) Lift up the CHUTE LOW EXIT (PL 7.1), and release the hooks of the SENSOR FACE UP OPEN, then, remove the SENSOR FACE UP OPEN from the CHUTE LOW EXIT (Figure 1).

**Figure 1. Face Up open Sensor****Replacement**

- 1) Install the SENSOR FACE UP OPEN to the CHUTE LOW EXIT (PL 7.1) (Figure 1).
- 2) Connect the connector (P/J291) of the HARNESS ASSEMBLY EXIT SNR (PL 7.1.27) to the SENSOR FACE UP OPEN (Figure 1).
- 3) Install the CHUTE UP EXIT (PL 7.1) (RRP7.3).
- 4) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 5) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 6) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 7) Install the COVER REAR (PL 1.1) (RRP1.1).

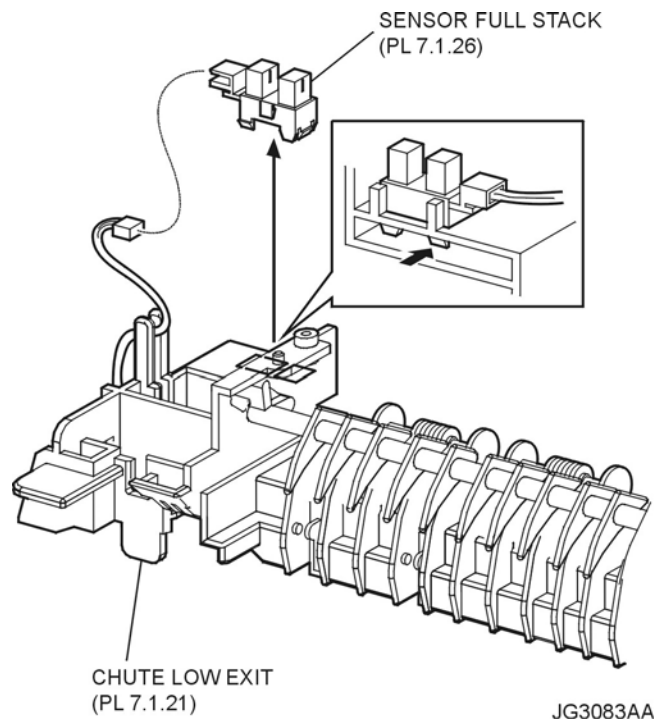
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 8) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.7 SENSOR FULL STACK (PL 7.1.26)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the CHUTE UP EXIT (PL 7.1) (RRP7.3).
- 7) Disconnect the connector (P/J290) of the HARNESS ASSEMBLY EXIT SNR (PL 7.1.27) from the SENSOR FULL STACK (Figure 1).
- 8) Release the hooks of the SENSOR FULL STACK, and remove the SENSOR FULL STACK from the CHUTE LOW EXIT (PL 7.1) (Figure 1).

**Figure 1. Full Stack Sensor****Replacement**

- 1) Install the SENSOR FULL STACK to the CHUTE LOW EXIT (PL 7.1) (Figure 1).
- 2) Connect the connector (P/J290) of the HARNESS ASSEMBLY SNR (PL 7.1.27) to the SENSOR FULL STACK (Figure 1).
- 3) Install the CHUTE UP EXIT (PL 7.1) (RRP7.3).
- 4) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 5) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 6) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 7) Install the COVER REAR (PL 1.1) (RRP1.1).

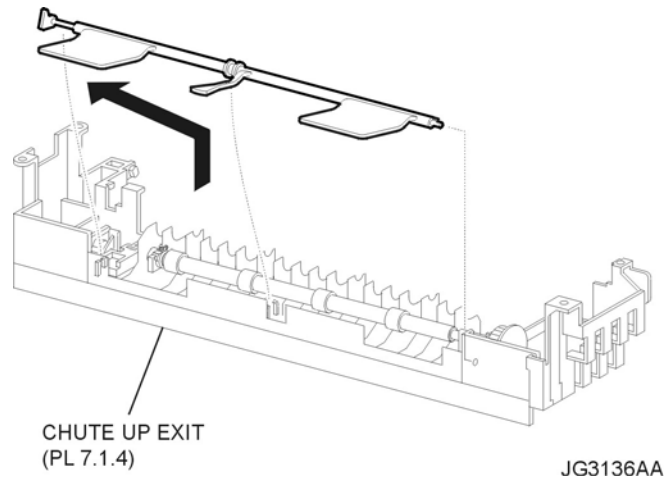
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 8) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.8 ACTUATOR FULL STACK (PL 7.1.10)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the CHUTE UP EXIT (PL 7.1) (RRP7.3).
- 7) Remove the ACTUATOR FULL STACK from the CHUTE UP EXIT by moving it in the direction of the arrow (Figure 1).

**Figure 1. Full Stack Actuator****Replacement**

- 1) Install the ACTUATOR FULL STACK to the CHUTE UP EXIT (PL 10.1.4) by moving it in the opposite direction of the arrow (Figure 1).
- 2) Install the CHUTE UP EXIT (RRP7.3)
- 3) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 4) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 6) Install the COVER REAR (PL 1.1) (RRP1.1).

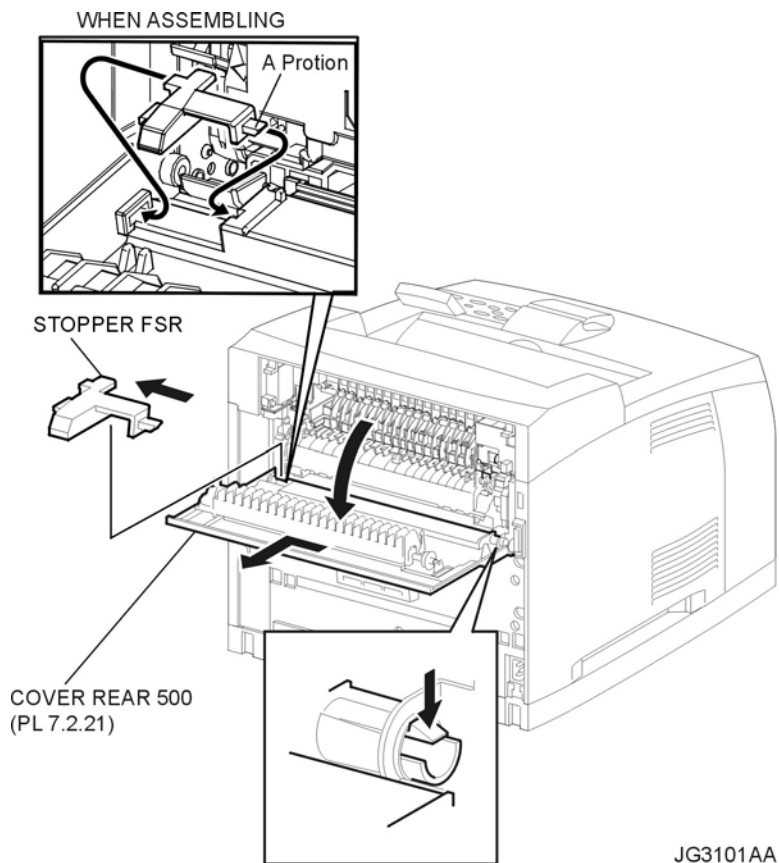
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 7) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.9 COVER REAR 500 (PL 7.1)**Removal**

- 1) Pinch the lever to release the lock, and open the COVER REAR 500 (Figure 1).
- 2) Move the STOPPER FSR in the arrow direction to remove (Figure 1).
- 3) Release the hook of the right side boss of the COVER REAR 500, and shift the COVER REAR 500 in the direction of the arrow to remove from the printer (Figure 1).

**Figure 1. 500 Rear Cover****Replacement**

- 1) Shift the COVER REAR 500 in the opposite direction of the arrow to install, and secure it with the hook (Figure 1).
- 2) Insert the A portion of the STOPPER FSR into the COVER REAR 500 first, and then insert the opposite side (Figure 1).
- 3) Close the COVER REAR 500.

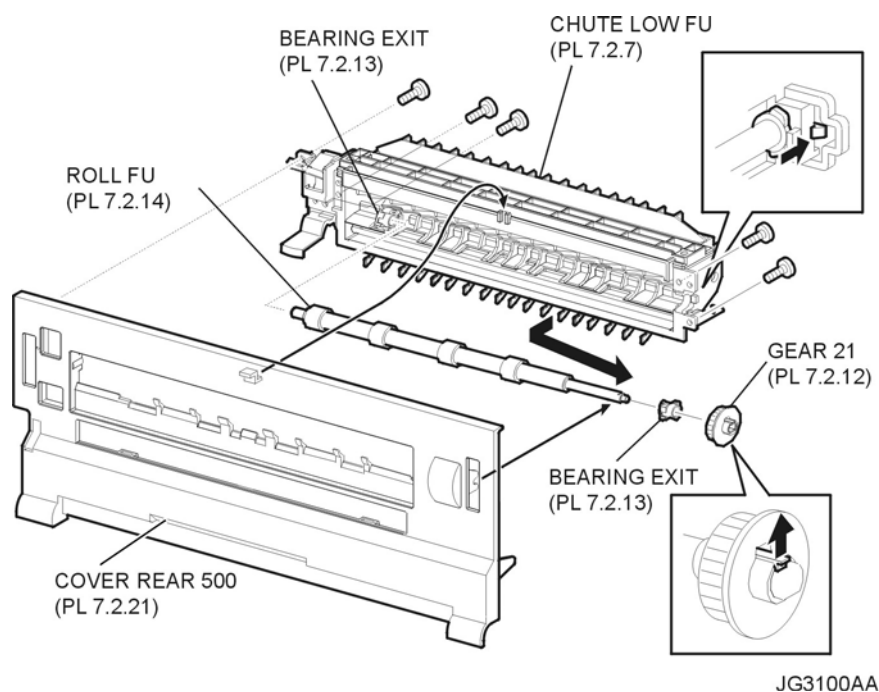
RRP7.10 FUSER ROLL (FU) (PL 7.2)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the 5 screws (gold tapping, 8mm) securing the CHUTE LOW FU (PL 7.2) to the COVER REAR 500 (Figure 1).
- 3) Release the hooks of the COVER REAR 550, and remove the CHUTE LOW FU from the COVER REAR 500 (Figure 1).
- 4) Release the hook of the GEAR 21 (PL 7.2), and remove it from the ROLL FU (Figure 1).
- 5) Release the hook of the BEARING EXIT (PL 7.2), and remove it from the CHUTE LOW FU (Figure 1).

NOTE

Be careful handling the hook of the BEARING EXIT. It is fragile and could break if given excessive force.

- 6) Remove the ROLL FU in the direction of the arrow (Figure 1).

**Figure 1. Fuser Roll****Replacement**

- 1) Install the ROLL FU to the BEARING EXIT (PL 7.2) on the opposite side of the GEAR 21 (PL 7.2) by shifting the ROLL FU in the opposite direction of the arrow (Figure 1).
- 2) Install the BEARING EXIT to the CHUTE LOW FU (PL 7.2) (Figure 1).
- 3) Install the GEAR 21 to the ROLL FU, and secure it with the hook (Figure 1).

NOTE

Be sure to install the hook of the GEAR 21 into the groove of the ROLL FU.

- 4) Install the CHUTE LOW FU to the COVER REAR 550, and secure it with the hook (Figure 1).
- 5) Secure the CHUTE LOW FU to the COVER REAR 550 using the 5 screws (gold tapping, 8mm).
- 6) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.11 LEVER GATE HOLDER, SPRING LEVER GATE, LEVER GATE FU (PL 7.2)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the 5 screws (gold tapping, 6mm) securing the CHUTE LOW FU (PL 7.2) to the COVER REAR 550.
- 3) Release the hooks of the COVER REAR 550, and remove the CHUTE LOW FU from the COVER REAR 550.
- 4) Remove the ROLL FU (PL 7.2) (RRP7.10).
- 5) Remove the LEVER GATE FU (PL 7.2) by rotating (Figure 1).

NOTE

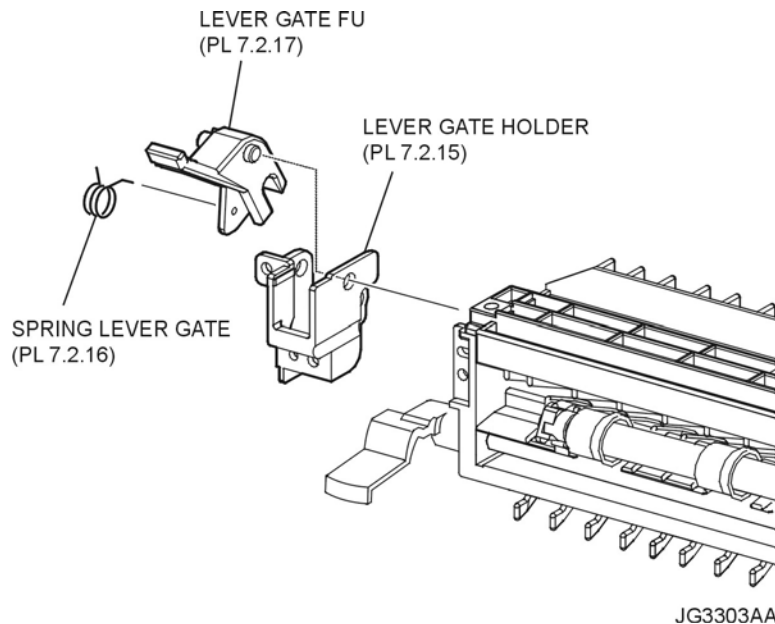
LEVER GATE HOLDER (PL 7.2), SPRING LEVER GATE (PL 7.2), and LEVER GATE FU (PL 7.2) are removed at the same time.

- 6) Bend LEVER GATE FU (PL 7.2), and remove it from LEVER GATE HOLDER (PL 7.2) (Figure 1).

NOTE

SPRING LEVER GATE (PL 7.2) remains on the side of LEVER GATE HOLDER (PL 7.2) (Figure 1).

- 7) Remove the SPRING LEVER GATE (PL 7.2) (Figure 1).

**Figure 1. Lever Gate Holder & Spring****Replacement**

- 1) Install the ROLL FU to the BEARING EXIT (PL 7.2) on the opposite side of the GEAR 21 (PL 7.2) by shifting the ROLL FU in the opposite direction of the arrow (Figure 1).
- 2) Install the BEARING EXIT to the CHUTE LOW FU (PL 7.2).
- 3) Install the GEAR 21 to the ROLL FU, and secure it with the hook.
- 4) Install the ROLL FU (PL 7.2) (RRP7.10).
- 5) Install the CHUTE LOW FU to the COVER REAR 550, and secure it with the hook.
- 6) Secure the CHUTE LOW FU to the COVER REAR 550 using the 5 screws (gold tapping, 6mm).
- 7) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.12 LEVER LATCH LEFT, SPRING LATCH FU, LEVER LATCH RIGHT (PL 7.2)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the 5 screws (gold tapping, 6mm) securing the CHUTE LOW FU (PL 7.2) to the COVER REAR 550.
- 3) Release the hooks of the COVER REAR 550, and remove the CHUTE LOW FU from the COVER REAR 550.
- 4) Remove the ROLL FU (PL 7.2) (RRP7.10).
- 5) Remove the LEVER GATE HOLDER (PL 7.2), SPRING LEVER GATE (PL 7.2), LEVER GATE FU (PL 7.2) (RRP7.11).
- 6) Rotate LEVER LATCH LEFT (PL 7.2) in the direction of the arrow, and remove it (Figure 1).

NOTE

Completely insert the internal projection of LEVER LATCH LEFT (PL 7.2) into the notch of CHUTE LOW FU (PL 7.2).

- 7) Rotate LEVER LATCH RIGHT (PL 7.2) in the direction of the arrow, and remove it (Figure 1).

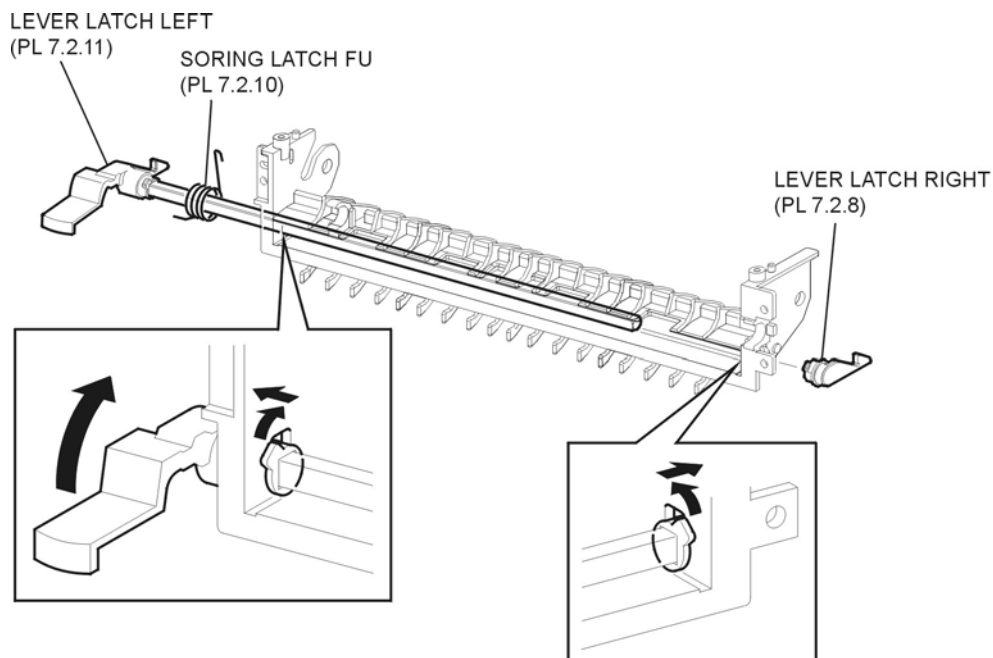
NOTE

Completely insert the internal projection of LEVER LATCH RIGHT (PL 7.2) and the notch of CHUTE LOW FU (PL 7.2).

NOTE

PIPE LATCH FU (PL 7.2) is also removed.

- 8) Remove the SPRING LATCH (PL 7.2) (Figure 1).



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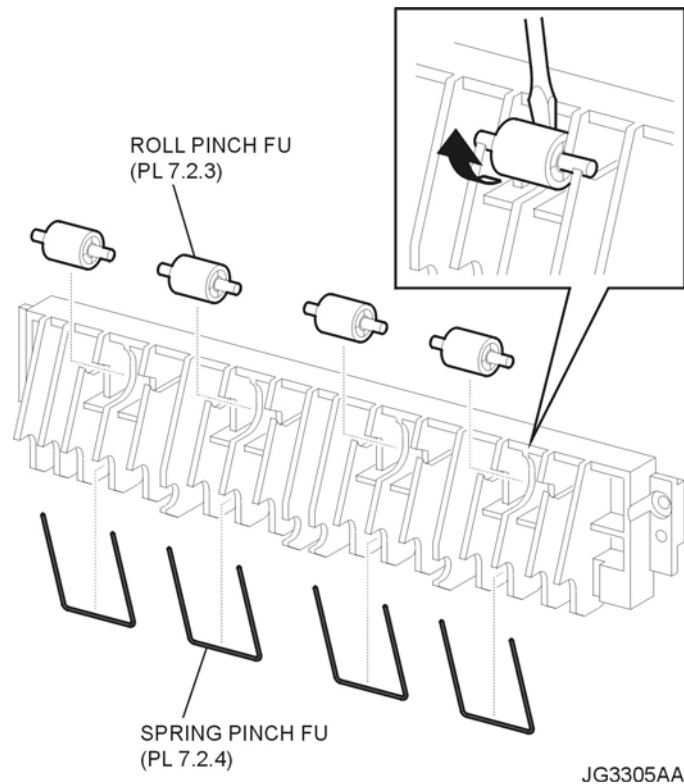
Figure 1. Left Lever Latch & Spring

Replacement

- 1) Install the SPRING LATCH (PL 7.2) (Figure 1).
- 2) Install the LEVER LATCH LEFT (PL 7.2) to PIPE LATCH FU (PL 7.2), then install them to CHUTE LOW FU (PL 7.2) (Figure 1).
- 3) Install the LEVER LATCH RIGHT (PL 7.2) to PIPE LATCH FU (PL 7.2) (Figure 1).
- 4) Insert the projections of both the LEVER LATCH RIGHT (PL 7.2) and LEVER LATCH LEFT (PL 7.2) into the notch of the CHUTE LOW FU (PL 7.2), and install by rotating in the opposite direction of the arrow (Figure 1).
- 5) Install LEVER GATE HOLDER (PL 7.2), SPRING LEVER GATE (PL 7.2), and LEVER GATE FU (PL 7.2) (Figure 1).
- 6) Install the ROLL FU (PL 7.2) (RRP7.10).
- 7) Install the CHUTE LOW FU to the COVER REAR 550, and secure it with the hook.
- 8) Secure the CHUTE LOW FU to the COVER REAR 550 using the 5 screws (gold tapping, 6mm).
- 9) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.13 ROLL PINCH FUSER, SPRING PINCH FUSER (PL 7.2)**Removal**

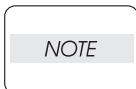
- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the 5 screws (gold tapping, 6mm) securing the CHUTE LOW FU (PL 7.2) to the COVER REAR 550.
- 3) Release the hooks of the COVER REAR 550, and remove the CHUTE LOW FU from the COVER REAR 550.
- 4) Remove the 2 screws (gold tapping, 6mm) securing the CHUTE UP FU (PL 7.2).
- 5) Insert a screwdriver between ROLL PINCH FU (PL 7.2) and CHUTE UP FU (PL 7.2), and remove ROLL PINCH FU (PL 7.2) (Figure 1).
- 6) Remove the SPRING PINCH FU (PL 7.2) (Figure 1).

**Figure 1. Fuser Pinch Roll & Spring****Replacement**

- 1) Install the SPRING PINCH FU (PL 7.2) (Figure 1).
- 2) Install the ROLL PINCH FU (PL 7.2) (Figure 1).
- 3) Install the CHUTE UP FU (PL 7.2) to the CHUTE LOW FU (PL 7.2) using the 4 screws (gold tapping, 6mm).
- 4) Install the CHUTE LOW FU to the COVER REAR 550, and secure it with the hook.
- 5) Secure the CHUTE LOW FU to the COVER REAR 550 using the 5 screws (gold tapping, 6mm).
- 6) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.14 GATE FUSER (PL 7.2)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the 5 screws (gold tapping, 6mm) securing the CHUTE LOW FU (PL 7.2) to the COVER REAR 550.
- 3) Release the hooks of the COVER REAR 550, and remove the CHUTE LOW FU from the COVER REAR 550.
- 4) Remove the LEVER GATE HOLDER (PL 7.2), SPRING LEVER GATE (PL 7.2), and LEVER GATE FU (PL 7.2) (RRP7.11).
- 5) Remove the 2 screws (gold tapping, 6mm) securing the CHUTE UP FU (PL 7.2).
- 6) Remove the GATE FU (PL 7.2) from CHUTE LOW FU (PL 7.2) by bending GATE FU (PL 7.2) (Figure 1).



Be careful handling the GATE FU. It is fragile and could break if given excessive force.

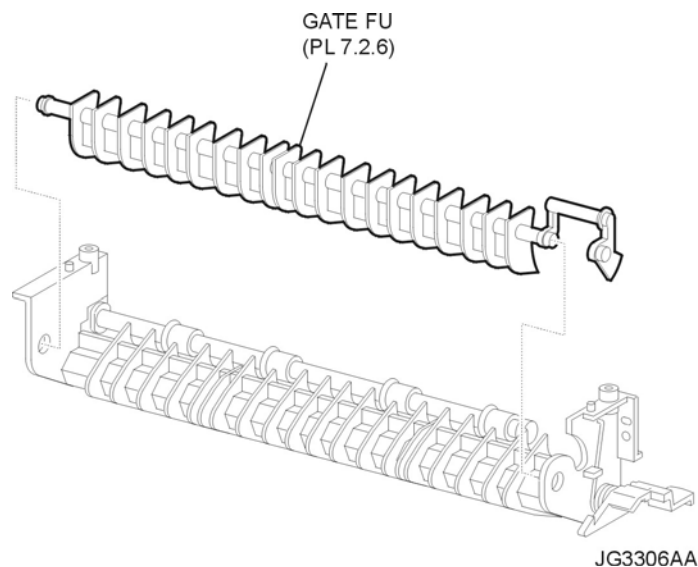


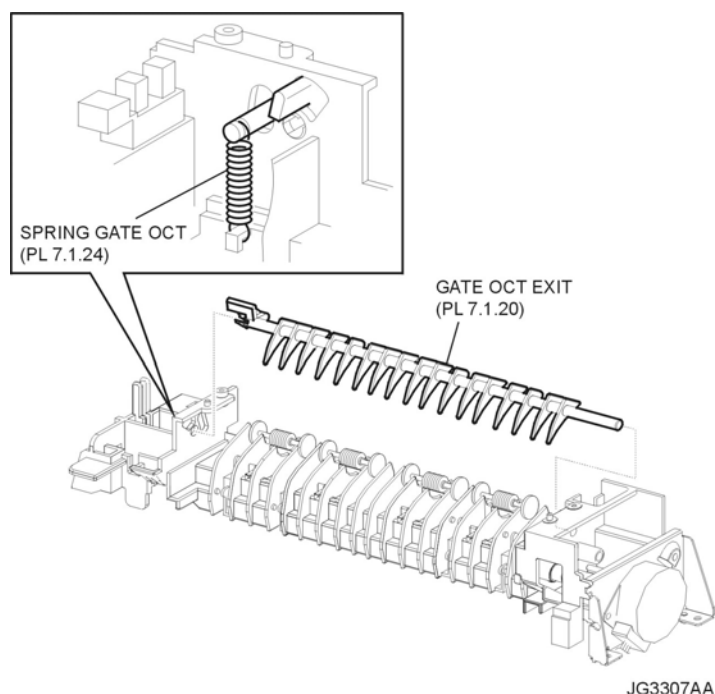
Figure 1. Fuser Gate

Replacement

- 1) Install the GATE FU (PL 7.2) to CHUTE LOW FU (PL 7.2) (Figure 1).
- 2) Secure the CHUTE UP FU using the 5 screws (gold tapping, 6mm).
- 3) Install the LEVER GATE HOLDER (PL 7.2), SPRING LEVER GATE (PL 7.2), and LEVER GATE FU (PL 7.2) (RRP7.11).
- 4) Install the ROLL FU to the BEARING EXIT (PL 7.2) on the opposite side of the GEAR 21 (PL 7.2) by shifting the ROLL FU in the opposite direction of the arrow.
- 5) Install the CHUTE LOW FU to the COVER REAR 550, and secure it with the hook.
- 6) Secure the CHUTE LOW FU to the COVER REAR 550 using the 5 screws (gold tapping, 6mm).
- 7) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP7.15 GATE OCT EXIT (PL 7.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the CHUTE LOW EXIT (PL 7.1) (RRP7.3).
- 8) Remove the SPRING GATE OCT (PL 7.1) (Figure 1).
- 9) Bend GATE OCT EXIT (PL 7.1), and remove the it from CHUTE LOW EXIT (Figure 1).

**Figure 1. OCT Exit Gate****Replacement**

- 1) Install the GATE OCT EXIT (PL 7.1) (Figure 1).
- 2) Install the SPRING GATE OCT (PL 7.1) (Figure 1).
- 3) Install the CHUTE LOW EXIT (PL 7.1) (RRP7.3).
- 4) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 5) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 7) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 8) Install the COVER REAR (PL 1.1) (RRP1.1).

NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 9) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP8. Frame & Drive

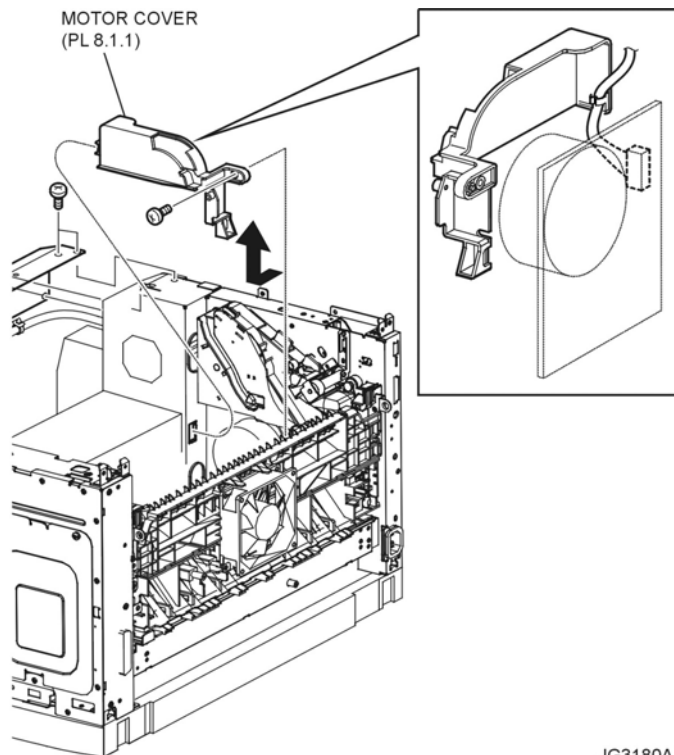
RRP8.1 MOTOR COVER (PL 8.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 5) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 6) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 7) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 9) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Remove the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 11) Remove the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 12) Remove the DUCT FRONT (PL 6.1) (RRP6.2).
- 13) Remove the ROS ASSEMBLY (PL 6.1) (RRP6.1).

NOTE

Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 14) Remove the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 15) While lifting up the 150 FEEDER ASSEMBLY, remove the screw (silver, 6mm) securing the MOTOR COVER to the frame (Figure 1).
- 16) Remove the harness connector of MAIN MOTOR (Figure 1).
- 17) Remove the MOTOR COVER (Figure 1).



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Figure 1. Motor Cover

Replacement

- 1) Install the MOTOR COVER to the frame using the screw (silver, 6mm) (Figure 1).
- 2) Install the harness connector of MAIN MOTOR(Figure 1).
- 3) Install the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 4) Install the ROS ASSEMBLY (PL 6.1) (RRP6.1).

NOTE

Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 5) Install the DUCT FRONT (PL 6.1) (RRP6.2).
- 6) Install the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 7) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 8) Install the COVER TOP (PL 1.1) (RRP1.4).
- 9) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 10) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 11) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 12) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 13) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 14) Install the COVER REAR (PL 1.1) (RRP1.1).

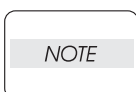
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 15) Install the COVER REAR 500 (PL 7.1) (RRP7.9).
- 16) Install the BTR ASSEMBLY (PL 6.1) (RRP6.9).

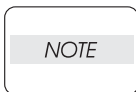
RRP8.2 MAIN MOTOR (PL 8.1.2)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 5) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 6) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 7) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 9) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Remove the BTR ASSEMBLY (PL 6.1) (RRP6.9).
- 11) Remove the DUCT FRONT (PL 6.1) (RRP6.2).
- 12) Remove the ROS ASSEMBLY (PL 6.1) (RRP6.1).



Be careful not to drop or strike the ROS Assembly with any tools or other objects.

- 13) Remove the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 14) Remove the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 15) Remove the MOTOR COVER (PL 8.1) (RRP8.1).
- 16) Remove the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 17) Disconnect the connector (P/J43) of the MAIN MOTOR from the LVPS (PL 9.1.5) and disconnect the connector (P/J271) (Figure 1).
- 18) Lift up the 150 FEEDER ASSEMBLY (PL 4.1) (Figure 1).

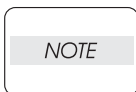


The 150 FEEDER ASSEMBLY clicks into a notch when lifted to the half way point, push the assembly past the notch.

- 19) Remove the 3 screws (gold, 6mm) securing the MAIN MOTOR to the frame (Figure 1).
- 20) Remove the MAIN MOTOR (Figure 1).

Replacement

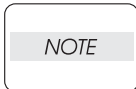
- 1) Install the MAIN MOTOR to the frame using the 3 screws (gold, 6mm) (Figure 1).
- 2) Connect the connector (P/J43) of the MAIN MOTOR to the LVPS (PL 9.1.5) and connect the connector (P/J271) (Figure 1).
- 3) Install the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 4) Install the MOTOR COVER (PL 8.1) (RRP8.1).
- 5) Install the GUIDE TRAY LEFT (PL 5.1) (RRP5.8).
- 6) Install the SHIELD PLATE ROS (PL 6.1) (RRP6.3).
- 7) Install the ROS ASSEMBLY (PL 6.1) (RRP6.1).



Be careful not to drop or strike the ROS Assembly with any tools or other objects.

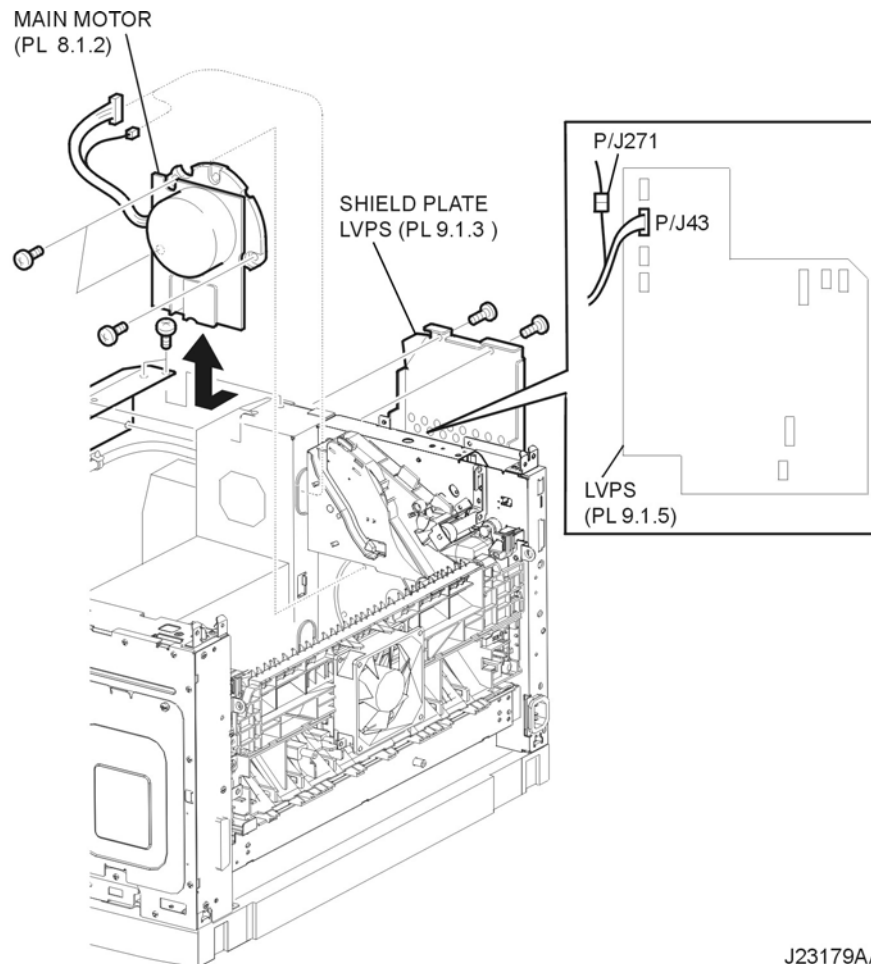
- 8) Install the DUCT FRONT (PL 6.1) (RRP6.2).
- 9) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Install the COVER TOP (PL 1.1) (RRP1.4).
- 11) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 12) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).

- 13) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 14) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 15) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 16) Install the COVER REAR (PL 1.1) (RRP1.1).



There are 2 kinds of screws, make sure they are installed correctly.

- 17) Install the COVER REAR 500 (PL 7.1) (RRP7.9).
- 18) Install the BTR ASSEMBLY (PL 6.1) (RRP6.9).



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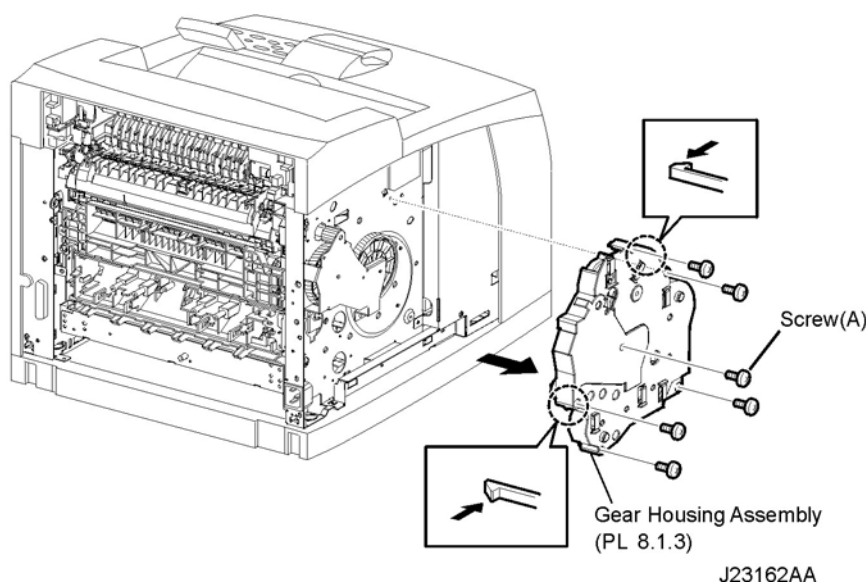
Figure 1. Main Motor

RRP8.3 GEAR ASSEMBLY HOUSING (PL 8.1.3)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Release the holding of the HARNESS ASSEMBLY INTERLOCK2 and HARNESS ASSEMBLY LVPS from the clamps on the GEAR ASSEMBLY HOUSING.
- 5) Remove the 6 screws (silver, 6mm x 5, gold, 6mm x 1) securing the GEAR ASSEMBLY HOUSING to the frame (Figure 1).
- 6) Release the hooks of the GEAR ASSEMBLY HOUSING, and remove it from the frame (Figure 1).

NOTE

When removing the GEAR ASSEMBLY HOUSING, two of the gears that are installed to the GEAR ASSEMBLY HOUSING are not fixed and they may come off. Be careful not to drop them.

**Figure 1. Gear Housing Assembly****Replacement**

- 1) Install the GEAR ASSEMBLY HOUSING to the frame (Figure 1).

NOTE

When installing, two of the gears that are installed to the GEAR ASSEMBLY HOUSING are not fixed and they may come off. Be careful not to drop them.

NOTE

When installing, engage the gears of the GEAR ASSEMBLY HOUSING, MAIN MOTOR, and GEAR ASSEMBLY PLATE. After assembling, check the engagement of the gears. The gears will engage easily when they are assembled, by rotating the MAIN MOTOR with hand.

- 2) Install the GEAR ASSEMBLY HOUSING to the frame using the 6 screws (silver, 6mm x 5, gold, 6mm x 1) (Figure 1).

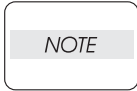
NOTE

Be sure to tighten the screw (gold, 8mm) shown as "Screw (A)" (Figure 1).

- 3) Secure the HARNESS ASSEMBLY INTERLOCK 2 and HARNESS ASSEMBLY LVPS (PL 9.1) using the clamps on the GEAR ASSEMBLY HOUSING (Figure 1).

4) Install the COVER LEFT (PL 1.1) (RRP1.3).

5) Install the COVER REAR (PL 1.1) (RRP1.1).



There are 2 kinds of screws, make sure they are installed correctly.

6) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP8.4 GEAR ASSEMBLY PLATE (PL 8.1.10), GEAR 9 (PL 8.1.9)**Removal**

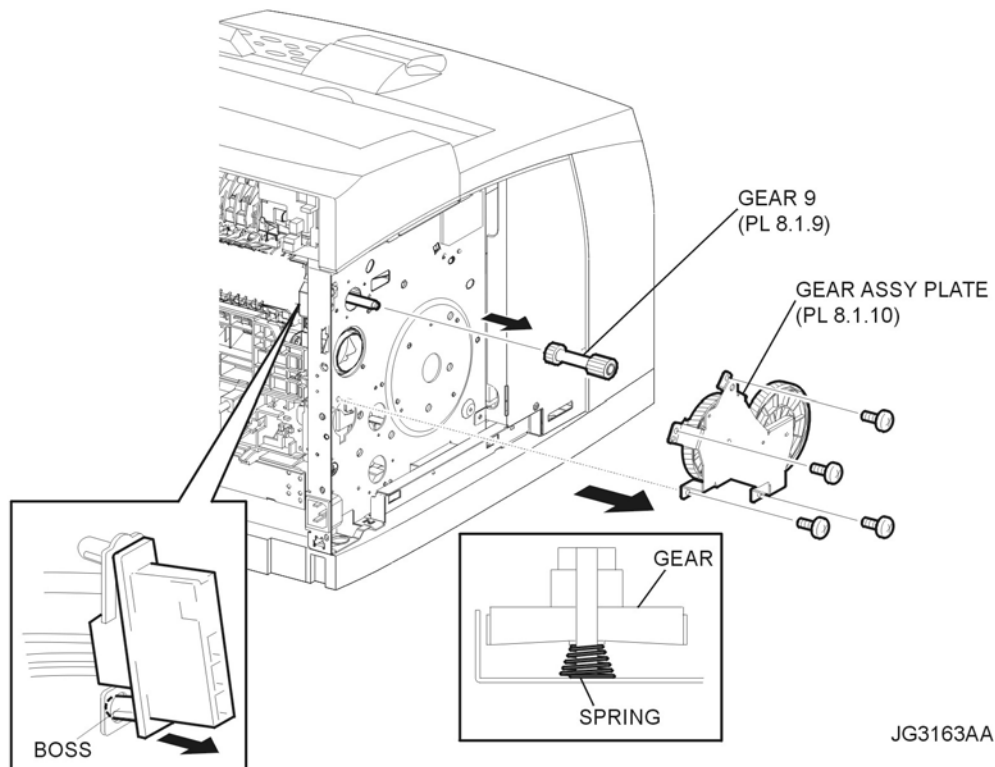
- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the FUSER ASSEMBLY (PL 6.1) (RRP6.8).
- 4) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 5) Remove the GEAR ASSEMBLY HOUSING (PL 8.1.3) (RRP8.3).
- 6) Remove the 4 screws (silver, 6mm) securing the GEAR ASSEMBLY PLATE to the frame (Figure 1).
- 7) Remove the GEAR ASSEMBLY PLATE (Figure 1).
- 8) Remove the boss of the bottom side of the connector of the HARNESS ASSEMBLY FUSER from the frame (Figure 1).
- 9) Remove the GEAR 9 (PL 8.1.9) from the shaft on the frame (Figure 1).

NOTE

When removing the GEAR ASSEMBLY PLATE, one of the gears installed to the GEAR ASSEMBLY PLATE is not fixed and it may come off. Be careful not to drop it.

NOTE

There is a SPRING inside of the GEAR that is not fixed to the GEAR ASSEMBLY PLATE. Be careful not to drop this SPRING.

**Figure 1. Gear 9 & Gear Plate Assembly****Replacement**

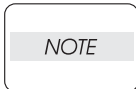
- 1) Install the GEAR 9 (PL 8.1.9) to the shaft on the frame (Figure 1).

NOTE

When installing the GEAR 9, be sure to install the narrow end of the GEAR inside.

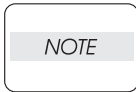
- 2) Install the boss which is under the connector of HARNESS ASSEMBLY FUSER to the frame (Figure 1).

- 3) Install the GEAR ASSEMBLY PLATE to the frame using the 4 screws (silver, 6mm) (Figure 1).

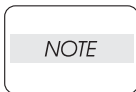


When installing, if the GEAR or the SPRING that are not fixed to the GEAR ASSEMBLY PLATE come off, re-install them in the direction shown in the figure.

- 4) Install the GEAR ASSEMBLY HOUSING (PL 8.1.3) (RRP8.3).



When installing, two of the gears that are installed to the GEAR ASSEMBLY HOUSING are not fixed and they may come off. Be careful not to drop them.



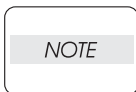
When installing, engage the gears of the GEAR ASSEMBLY HOUSING, MAIN MOTOR, and GEAR ASSEMBLY PLATE. After assembling, check the engagement of the gears. The gears will engage easily when they are assembled, by rotating the MAIN MOTOR with hand.

- 5) Insert the boss of the bottom side of the connector of the HARNESS ASSEMBLY FUSER to the frame.

- 6) Install the COVER LEFT (PL 1.1) (RRP1.3).

- 7) Install the FUSER ASSEMBLY (PL 6.1) (RRP6.8).

- 8) Install the COVER REAR (PL 1.1) (RRP1.1).



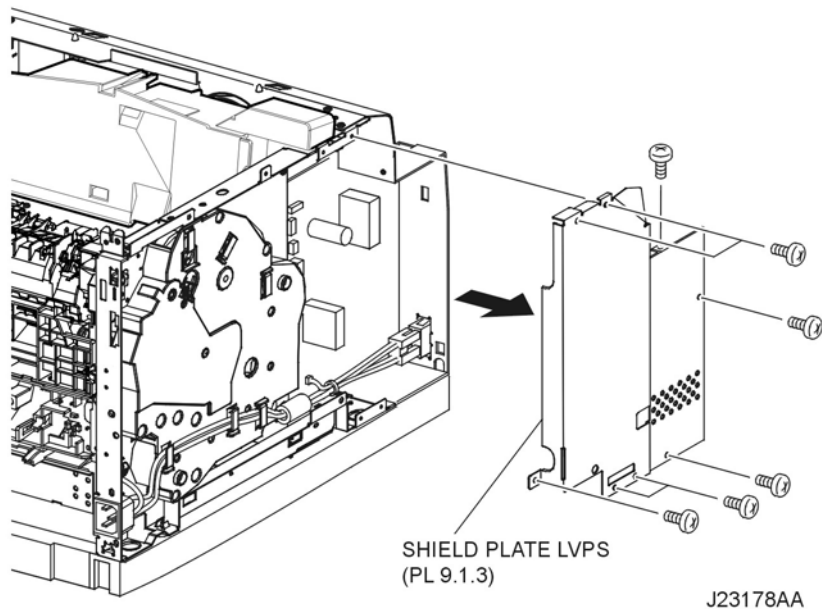
There are 2 kinds of screws, make sure they are installed correctly.

- 9) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP9. Electrical

RRP9.1 SHIELD PLATE LVPS (PL 9.1)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 8) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 9) Remove the 8 screws (silver, 6mm) securing the SHIELD PLATE LVPS to the frame (Figure 1).
- 10) Remove the SHIELD PLATE LVPS (Figure 1).

**Figure 1. LVPS Shield Plate****Replacement**

- 1) Install the SHIELD PLATE LVPS to the frame using the 8 screws (silver, 6mm) (Figure 1).
- 2) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 3) Install the COVER TOP (PL 1.1) (RRP1.4).
- 4) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).

NOTE

When installing, pull the CHUTE EXIT FUSER lever.

- 5) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 7) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 8) Install the COVER REAR (PL 1.1) (RRP1.1).

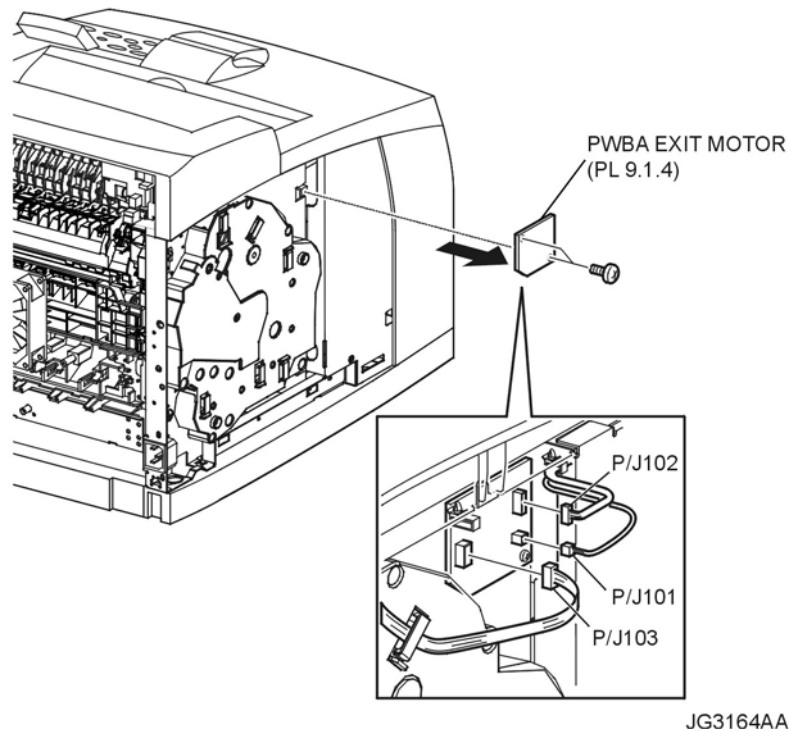
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 9) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP9.2 PWBA EXIT MOTOR (PL 9.1.4)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Disconnect the harnesses from the connectors (P/J101, P/J102 and P/J103) on the PWBA EXIT MOTOR (Figure 1).
- 5) Remove the 2 screws (silver, 6mm) securing the PWBA EXIT MOTOR to the frame (Figure 1).
- 6) Remove the PWBA EXIT MOTOR (Figure 1).

**Figure 1. Exit Motor PWBA****Replacement**

- 1) Install the PWBA EXIT MOTOR to the frame using the 2 screws (silver, 6mm) (Figure 1).
- 2) Connect the harness connectors to the connectors (P/J101, P/J102 and P/J103) on the PWBA EXIT MOTOR (Figure 1).
- 3) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Install the COVER REAR (PL 1.1) (RRP1.1).

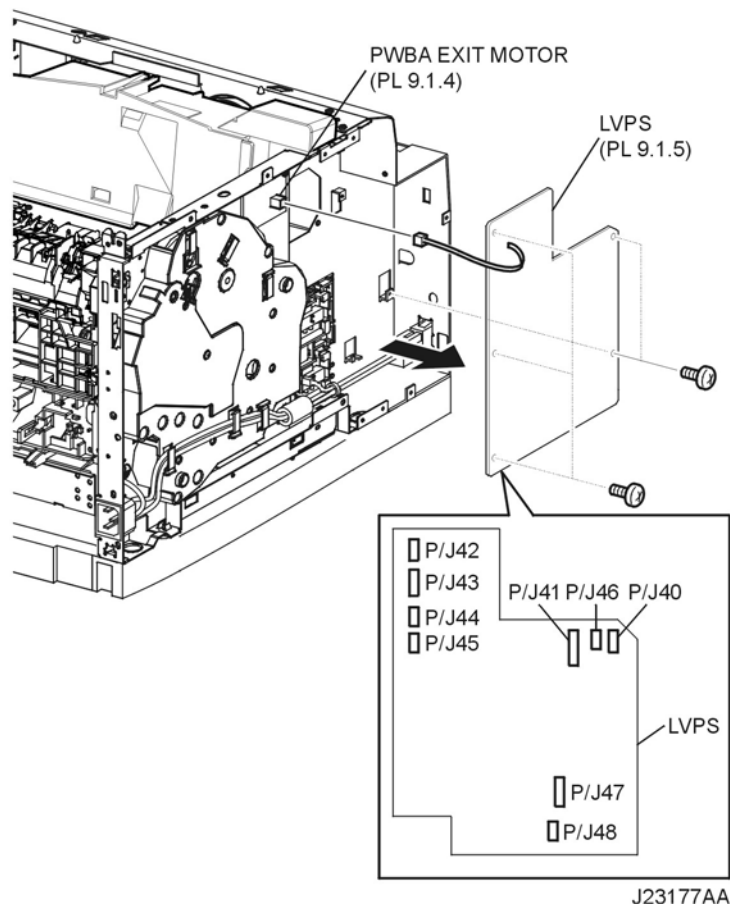
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 5) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP9.3 LVPS (PL 9.1.5)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 8) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 9) Remove the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 10) Disconnect the harness connector from the connector (P/J101) on the PWBA EXIT MOTOR (PL 9.1.4) (Figure 1).
- 11) Disconnect the harness connectors from the connectors (P/J40, P/J41, P/J42, P/J43, P/J44, P/J45, P/J46, P/J47 and P/J48) on the LVPS (Figure 1).
- 12) Remove the 5 screws (silver, 6mm) securing the LVPS to the frame (Figure 1).
- 13) Remove the LVPS.

**Figure 1. Low Voltage Power Supply (LVPS)**

Replacement

- 1) Install the LVPS to the frame using the 5 screws (silver, 6mm) (Figure 1).
- 2) Connect the harness connectors to the connectors (P/J40, P/J41, P/J42, P/J43, P/J44, P/J45, P/J46, P/J47 and P/J48) on the LVPS (Figure 1).
- 3) Connect the connector of the harness LVPS to the connector (P/J101) on the PWBA EXIT MOTOR (PL 12.1.4) (Figure 1).
- 4) Install the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 5) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 6) Install the COVER TOP (PL 1.1) (RRP1.4).
- 7) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 8) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).

NOTE

When installing, pull the CHUTE EXIT FUSER lever.

- 9) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 10) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 11) Install the COVER REAR (PL 1.1) (RRP1.1).

NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 12) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP9.4 POWER SWITCH (PL 9.1.6), HARNESS ASSEMBLY AC100V/AC200V (PL 9.1.8)

Removal

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 8) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 9) Remove the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 10) Release the clamp of the HARNESS ASSEMBLY AC100V/AC200V from the clamps on the GEAR ASSEMBLY HOUSING (PL 8.1.3) (Figure 1).
- 11) Disconnect the connector (P/J480) of the HARNESS ASSEMBLY AC100V/AC200V from the POWER SWITCH (Figure 1).
- 12) Disconnect the connector (P/J48) of the HARNESS ASSEMBLY AC100V/AC200V from the LVPS (PL 9.1.5) (Figure 1).
- 13) Release the clamp of the HARNESS ASSEMBLY AC100V/AC200V (Figure 1).
- 14) Remove the screw (silver with toothed washer, 6mm) securing the ground terminal of the HARNESS ASSEMBLY AC100V/AC200V to the frame (Figure 1).
- 15) Pull out the HARNESS ASSEMBLY AC100V/AC200V from the hole at the rear of the frame (Figure 1).
- 16) Remove the POWER SWITCH from the frame.

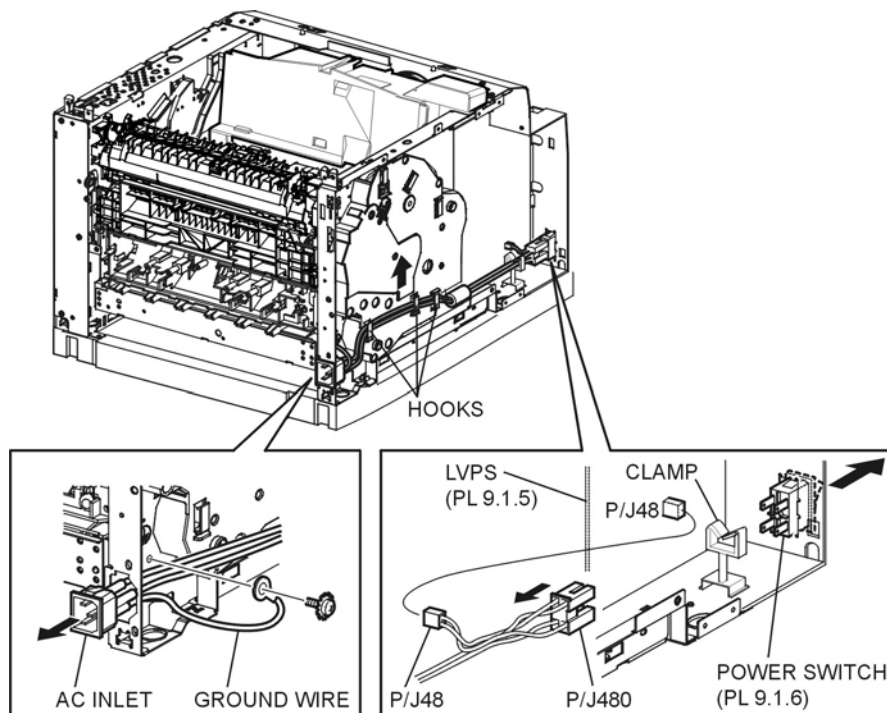


Figure 1. Power Switch & Harness Assembly

Replacement

- 1) Install the POWER SWITCH to the frame (Figure 1).
- 2) Install the HARNESS ASSEMBLY AC100V/AC200V to the hole at the rear of the frame (Figure 1).
- 3) Secure the ground terminal of the HARNESS ASSEMBLY AC100V/AC200V to the frame using the screw (silver with toothed washer, 6mm) (Figure 1).
- 4) Secure the HARNESS ASSEMBLY AC100V/AC200V.
- 5) Connect the connector (P/J48) of the HARNESS ASSEMBLY AC100V/AC200V to the LVPS (PL 9.1.5).
- 6) Connect the connector (P/J480) of the HARNESS ASSEMBLY AC100V/AC200V to the POWER SWITCH.
- 7) Secure the HARNESS ASSEMBLY AC100V/AC200V using the clamps of the GEAR ASSEMBLY HOUSING (PL 8.1.3).
- 8) Install the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 9) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 10) Install the COVER TOP (PL 1.1) (RRP1.4).
- 11) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).

NOTE

When installing, pull the CHUTE EXIT FUSER lever.

- 12) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 13) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 14) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 15) Install the COVER REAR (PL 1.1) (RRP1.1).

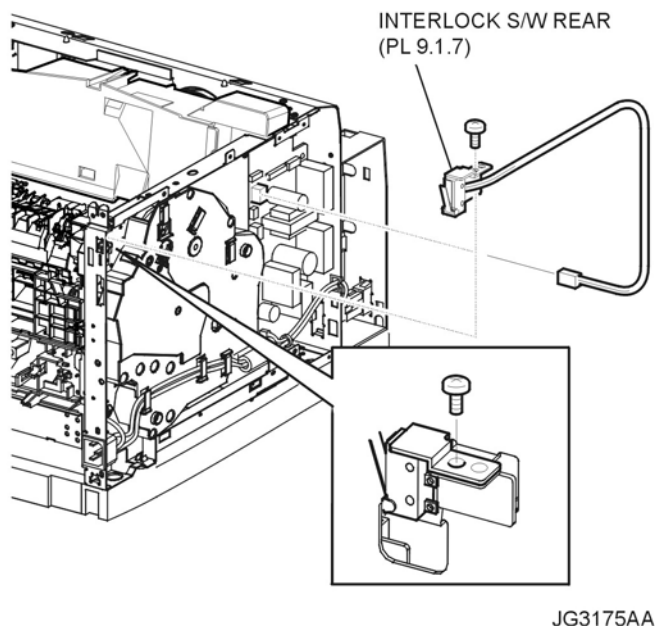
NOTE

There are 2 kinds of screws, make sure they are installed correctly.

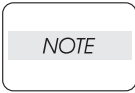
- 16) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP9.5 INTERLOCK S/W REAR (PL 9.1.7)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Remove the COVER LEFT (PL 1.1) (RRP1.3).
- 4) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 5) Remove the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 6) Remove the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).
- 7) Remove the COVER TOP (PL 1.1) (RRP1.4).
- 8) Remove the COVER FRONT (PL 1.1) (RRP1.5).
- 9) Remove the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 10) Disconnect the connector (P/J44) of the INTERLOCK S/W REAR from the LVPS (PL 9.1.5) (Figure 1).
- 11) Release the clamps of the HARNESS ASSEMBLY INTERLOCK 2 of the INTERLOCK S/W REAR from the clamps on the GEAR ASSEMBLY HOUSING (PL 8.1.3) (Figure 1).
- 12) Remove the screw (silver, 6mm) securing the INTERLOCK S/W REAR to the frame (Figure 1).
- 13) Remove the INTERLOCK S/W REAR.

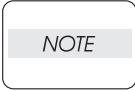
**Figure 1. Rear Interlock Switch****Replacement**

- 1) Install the INTERLOCK S/W REAR to the frame using the screw (silver, 6mm) (Figure 1).
- 2) Secure the HARNESS ASSEMBLY INTERLOCK 2 of the INTERLOCK S/W REAR to the clamps on the GEAR ASSEMBLY HOUSING (PL 8.1.3) (Figure 1).
- 3) Connect the connector (P/J44) of the INTERLOCK S/W REAR to the LVPS (PL 9.1.5) (Figure 1).
- 4) Install the SHIELD PLATE LVPS (PL 9.1) (RRP8.1).
- 5) Install the COVER FRONT (PL 1.1) (RRP1.5).
- 6) Install the COVER TOP (PL 1.1) (RRP1.4).
- 7) Install the 500 EXIT ASSEMBLY (PL 7.1) (RRP7.2).



When installing, pull the CHUTE EXIT FUSER lever.

- 8) Install the COVER EXIT 500 (PL 1.1) (RRP7.1).
- 9) Install the COVER RIGHT (PL 1.1) (RRP1.2).
- 10) Install the COVER LEFT (PL 1.1) (RRP1.3).
- 11) Install the COVER REAR (PL 1.1) (RRP1.1).

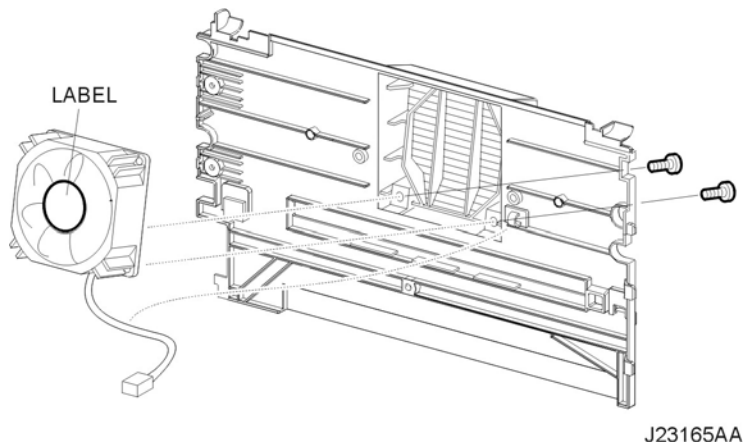


There are 2 kinds of screws, make sure they are installed correctly.

- 12) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP9.6 FAN MAIN (PL 1.1.14)**Removal**

- 1) Remove the COVER REAR 500 (PL 7.1) (RRP7.9).
- 2) Remove the COVER REAR (PL 1.1) (RRP1.1).
- 3) Release the harness clamps of the FAN MAIN (Figure 1).
- 4) Remove the 2 screws (silver tapping, 8mm) securing the FAN MAIN to the COVER REAR, and remove the FAN MAIN (Figure 1).

**Figure 1. Main Fan****Replacement**

- 1) Install the FAN MAIN to the COVER REAR using the 2 screws (silver tapping, 8mm) (Figure 1).

NOTE

When installing, be sure to install the FAN MAIN so that the label is facing outside.

NOTE

When installing, make sure the harness is not pinched between the FAN MAIN and the COVER REAR.

- 2) Attach the harness of the FAN MAIN with the clamp (Figure 1).
- 3) Install the COVER REAR (PL 1.1) (RRP1.1).

NOTE

There are 2 kinds of screws, make sure they are installed correctly.

- 4) Install the COVER REAR 500 (PL 7.1) (RRP7.9).

RRP9.7 SHIELD ASSEMBLY ESS (PL 9.1)

Removal

- 1) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 2) Remove the 12 screws (silver, 6mm) securing the SHIELD ASSEMBLY ESS to the frame (Figure 1).
- 3) Remove the SHIELD ASSEMBLY ESS.

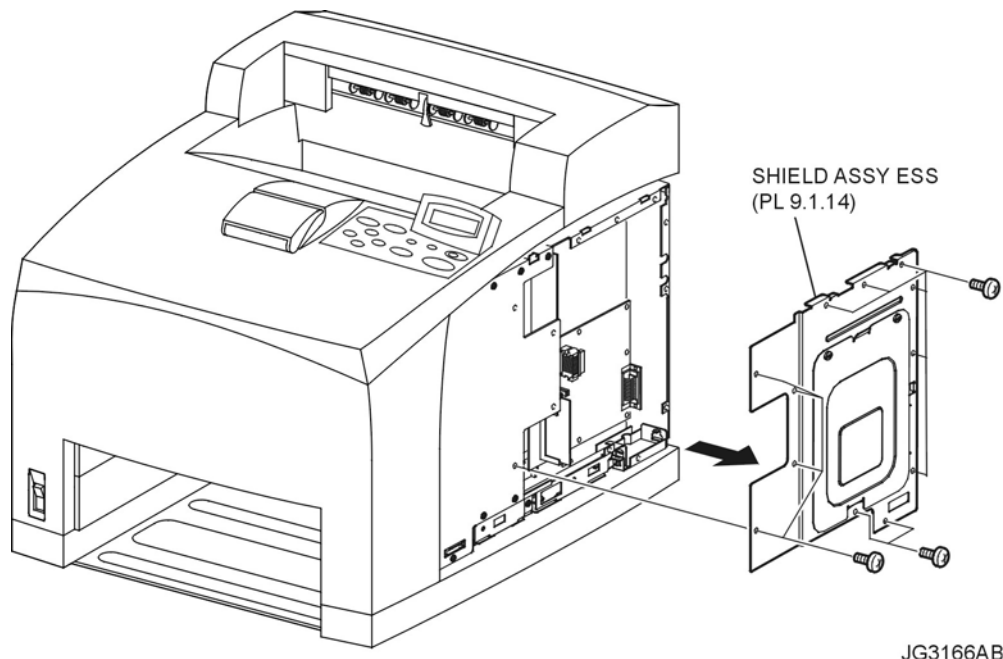


Figure 1. ESS Shield Assembly

Replacement

- 1) Install the SHIELD ASSEMBLY ESS to the frame using the 12 screws (silver, 6mm) (Figure 1).
- 2) Install the COVER RIGHT (PL 1.1) (RRP1.2).

RRP9.8 SHIELD ASSEMBLY WINDOW (PL 9.1)

Removal

- 1) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 2) Remove the 2 screws securing the SHIELD ASSEMBLY WINDOW to the frame (Figure 1).
- 3) Remove the SHIELD ASSEMBLY WINDOW.

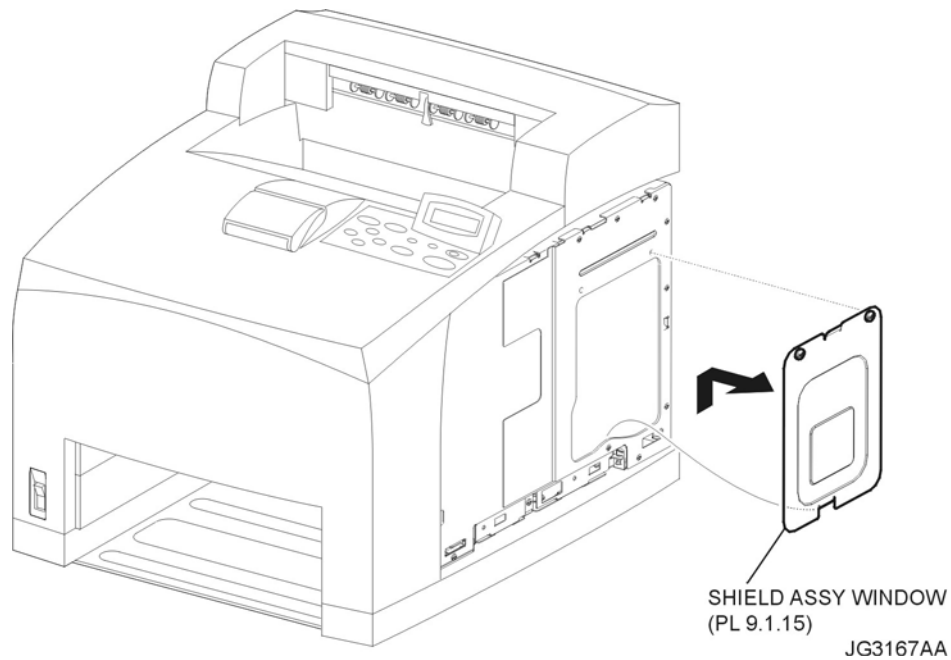


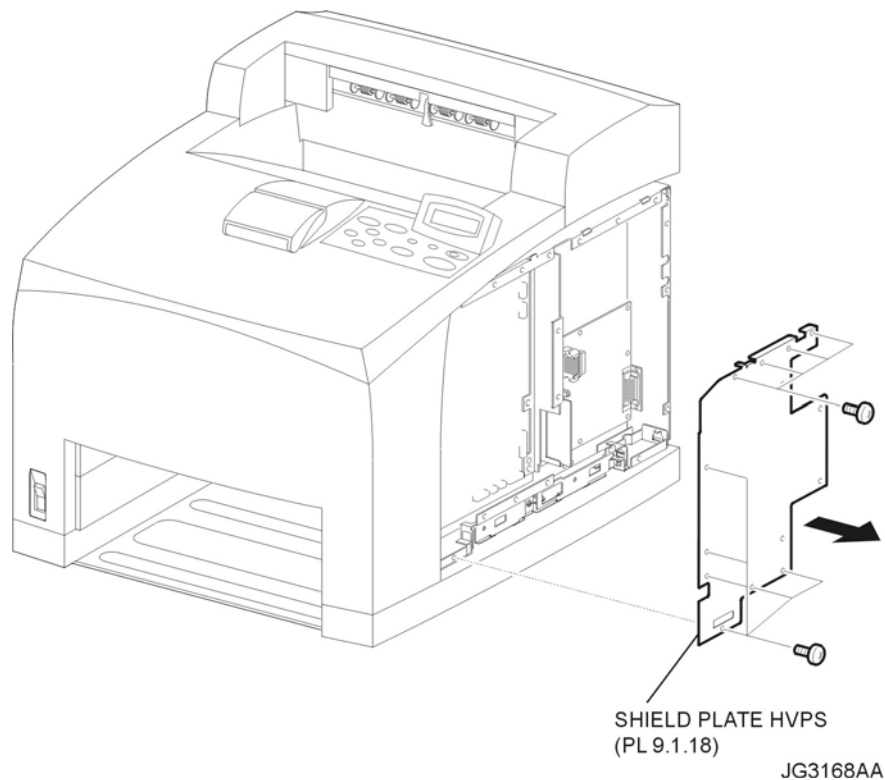
Figure 1. Window Shield Assembly

Replacement

- 1) Install the SHIELD ASSEMBLY WINDOW to the frame using the 2 screws (Figure 1).
- 2) Install the COVER RIGHT (PL 1.1) (RRP1.2).

RRP9.9 SHIELD PLATE HVPS (PL 12.1.18)**Removal**

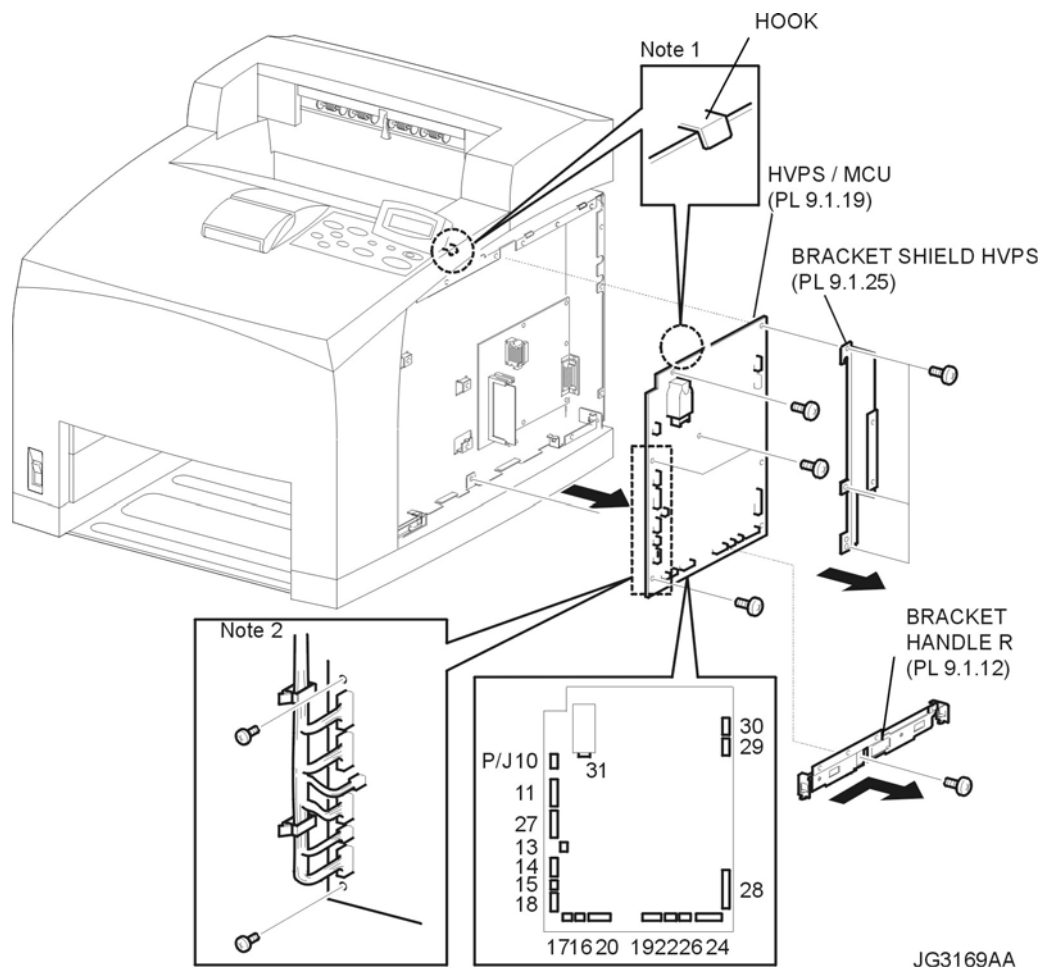
- 1) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 2) Remove the SHIELD ASSEMBLY ESS (PL 9.1) (RRP9.7).
- 3) Remove the 10 screws (silver, 6mm) securing the SHIELD PLATE HVPS to the frame (Figure 1).
- 4) Remove the SHIELD PLATE HVPS.

**Figure 1. HVPS Shield Plate****Replacement**

- 1) Install the SHIELD PLATE HVPS to the frame using the 10 screws (silver, 6mm) (Figure 1).
- 2) Install the SHIELD ASSEMBLY ESS (PL 9.1) (RRP9.7).
- 3) Install the COVER RIGHT (PL 1.1) (RRP1.2).

RRP9.10 HVPS/MCU (PL 9.1.19)**Removal**

- 1) Remove the COVER RIGHT (PL 1.1) (RRP1.2).
- 2) Remove the SHIELD ASSEMBLY ESS (PL 9.1) (RRP9.7).
- 3) Remove the SHIELD PLATE HVPS (PL 9.1) (RRP9.9).
- 4) Remove the screw (silver, 6mm) securing the BRACKET HANDLE R (PL 9.1.12) to the frame.
- 5) Remove the BRACKET HANDLE R from the frame.
- 6) Disconnect the harness connectors from the connectors (P/J10, P/J11, P/J13, P/J14, P/J15, P/J16, P/J17, P/J18, P/J20, P/J22, P/J24, P/J26, P/J 27, P/J 28, P/J29, P/J30, and P/J31) on the HVPS/MCU (Figure 1).
- 7) Remove the 3 screws (silver, 6mm) securing the BRACKET SHIELD HVPS (PL 9.1) to the frame (Figure 1).
- 8) Remove the 4 screws (silver, 6mm) securing the HVPS/MCU (PL 9.1) to the frame (Figure 1).
- 9) Carefully remove the HVPS/MCU from the 2 mounting tabs on the right side of the frame and slide the unit down slightly to release it from the frame hook (Figure 1).

**Figure 1. HVPS/MCU****Replacement**

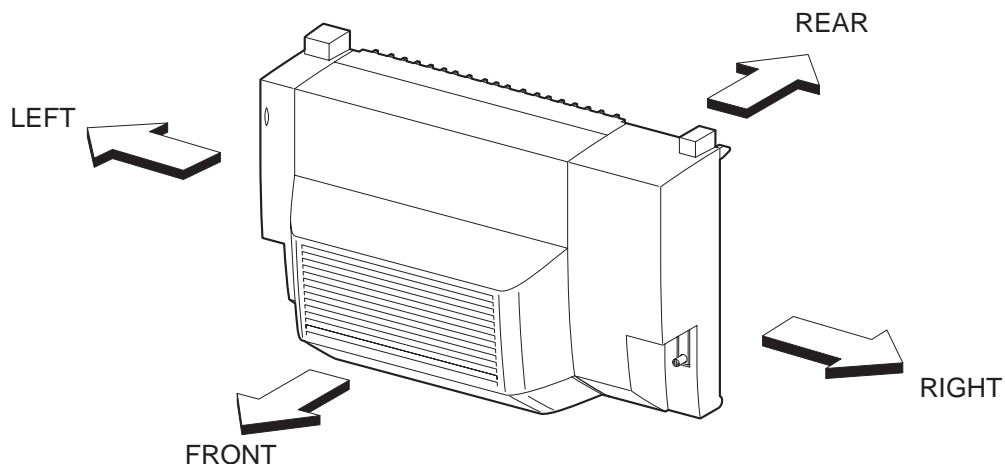
- 1) Carefully slide the unit under the frame hook and seat it on the 2 mounting tabs on the right side of the frame (Figure 1).
- 2) Replace the 4 screws (silver, 6mm) securing the HVPS/MCU (PL 9.1) to the frame (Figure 1).

- 3) Replace the BRACKET SHIELD HVPS (PL 9.1) to the frame and secure with 3 screws (silver, 6mm) (Figure 1).
- 4) Reconnect the harness connectors: (P/J10, P/J11, P/J13, P/J14, P/J15, P/J16, P/J17, P/J18, P/J20, P/J22, P/J24, P/J26, P/J 27, P/J 28, P/J29, P/J30, and P/J31) on the HVPS/MCU (Figure 1).
- 5) Replace the BRACKET HANDLE R on the frame.
- 6) Replace the screw (silver, 6mm) securing the BRACKET HANDLE R (PL 9.1.12) to the frame.
- 7) Replace the SHIELD PLATE HVPS (PL 9.1) (RRP9.9).
- 8) Replace the SHIELD ASSEMBLY ESS (PL 9.1) (RRP9.7).
- 9) Replace the COVER RIGHT (PL 1.1) (RRP1.2).

Duplex Option

Description of procedure

- ❑ [RRP X.Y "AAAAA"] attached at the front of the procedure shows that the name of parts to be assembled/disassembled is "AAAAA".
- ❑ "(PL X.Y.Z)" attached at the end of parts name in the procedure shows that the parts corresponds to the plate (PL) "X.Y", item "Z" of [Chapter 5 Parts list], and their shape and fitting position can be checked in [Chapter 5 parts list].
- ❑ The printer orientation used in the procedures is defined as follows:
 - Front : Front direction when facing the front of device.
 - Rear : Rear direction when facing the front of device.
 - Left : Left direction when facing the front of device.
 - Right : Right direction when facing the front of device.



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- ❑ The screws in procedures are expressed with their replacing position, color, characteristics and nominal length, etc.
- ❑ In case of "____ specifications" in the procedures indicate that service operation should be provided only to Duplex Option of specified specifications (service operation should not be provided for Duplex Option of specifications not covered).
- ❑ "RRP X.Y" in the midst or at the end of sentences in the procedures indicate that work procedures related with the "RRP X.Y" are described.
- ❑ "Figure X.Y" at the end of the sentences of procedures indicate that illustrations instructive for the "RRP X.Y" are included.
- ❑ "Z)" in the illustrations correspond to "Z)" of the service procedures.
- ❑ The screws in the illustrations should be removed using a plus (+) screwdriver unless otherwise specified.
- ❑ A black arrow in the illustrations indicate movement in the arrow mark direction. Numbered black arrows indicate movement in the order of the numbers.
- ❑ White arrows (FRONT) in the illustrations indicate the front direction.
- ❑ For the positions of the connectors (P/J), refer to Chapter 7, Electric wiring.

RRP10.Duplex Option

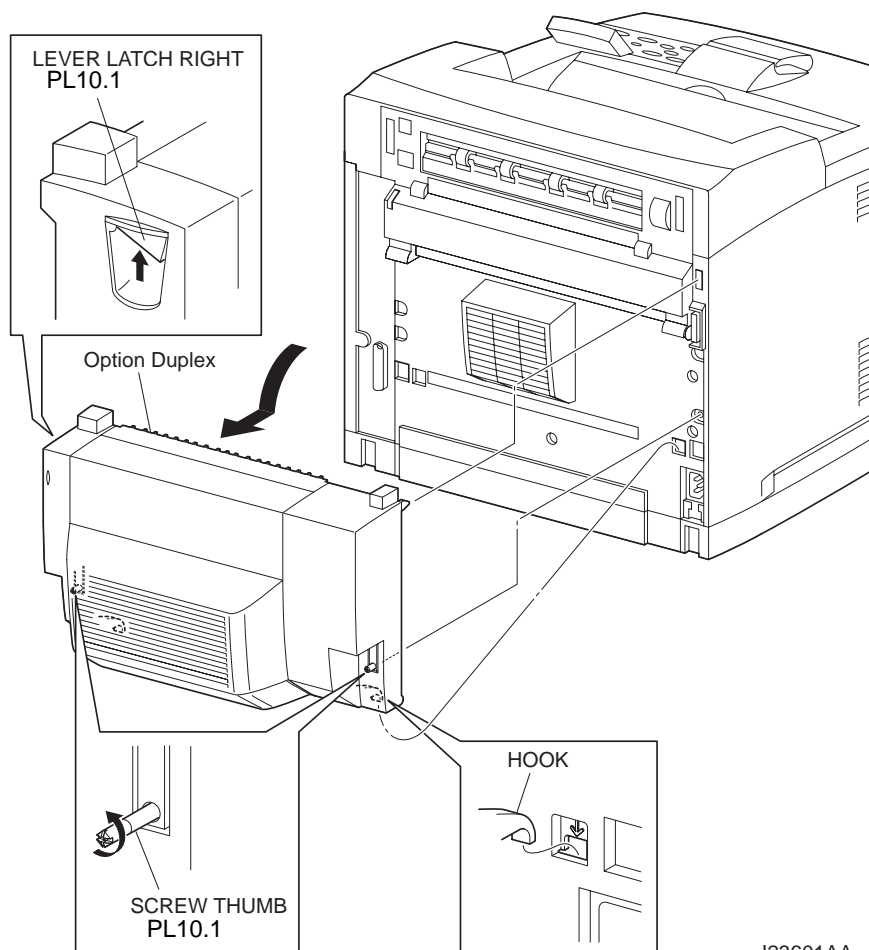
RRP10.1 Duplex Option

Removal

NOTE

When removing the Duplex Option, be careful not to drop the Duplex unit.

- 1) Loosen the 2 SCREW THUMBS (PL 10.1) securing the Duplex Option to the printer.
- 2) Push up the LEVER LATCH RIGHT (PL 10.1), and release the hooks of the LEVER LATC RIGHT and LEVER LATCH LEFT (PL 10.1).
- 3) Position the Duplex Option forward, disconnect the connector (P/J2750) of the HARNESS ASSY DUP (PL 10.1) from the printer.
- 4) Remove 2 bosses on both sides of the HSG LOWER DUP (PL 10.1).
- 5) Release the 2 bottom hooks of the HSG LOWER DUP, and remove the Duplex Option from the printer.



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Replacement**NOTE**

When installing the Duplex Option, be careful not to drop the unit.

- 1) Insert the 2 bottom hooks of the HSG LOWER DUP (PL 10.1) into the holes of the printer.

NOTE

When installing, be sure to install the bottom hooks of the Duplex Option into the holes of the printer.

- 2) Push the Duplex Option to the printer, and connect the connector (P/J2750) of the HARNESS ASSY DUP (PL 10.1) to the printer. At this time, the Duplex Option is locked to the printer with the LEVER LATCH RIGHT (PL 10.1) and LEVER LATCH LEFT (PL 10.1).
- 3) Secure the Duplex Option to the printer by tightening the 2 SCREW THUMBs (PL 10.1).

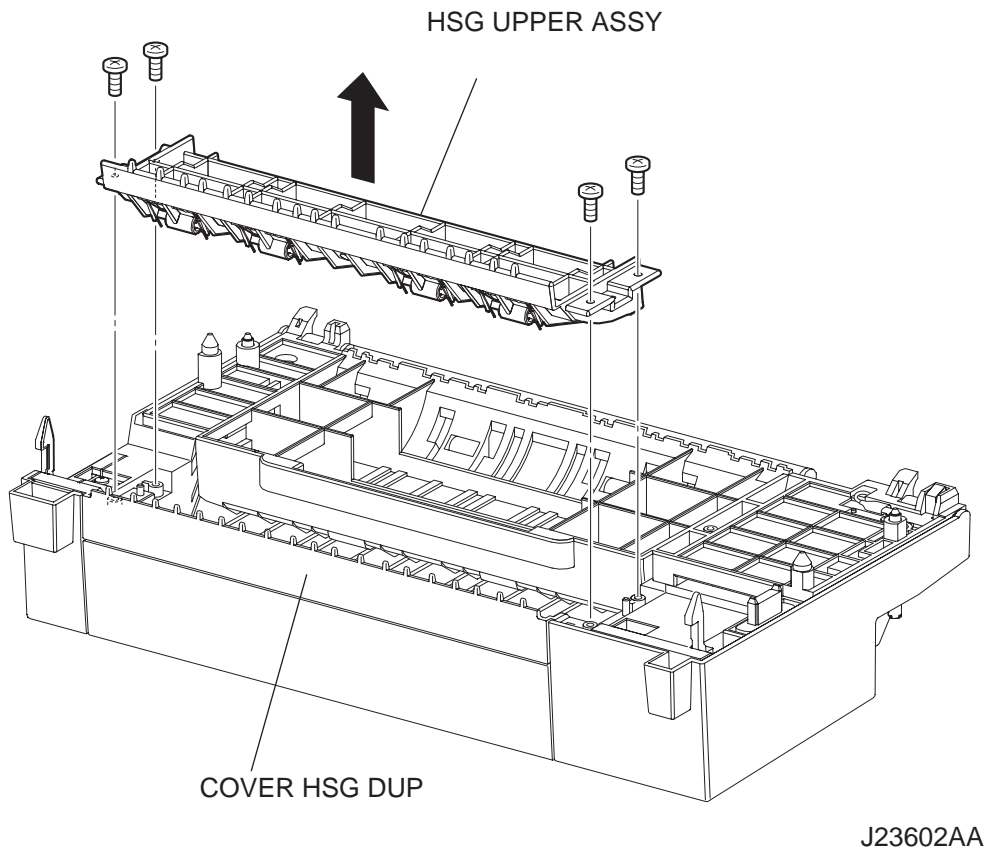
NOTE

The SCREW THUMBs should be completely tightened to fasten the unit.

RRP10.2 HSG UPPER ASSY (PL10.1)

Removal

- 1) Remove the 4 screws (gold tapping, 8mm) securing the HSG UPPER ASSY to the Option Duplex.
- 2) Remove the HSG UPPER ASSY from the COVER HSG DUP (PL 10.1).

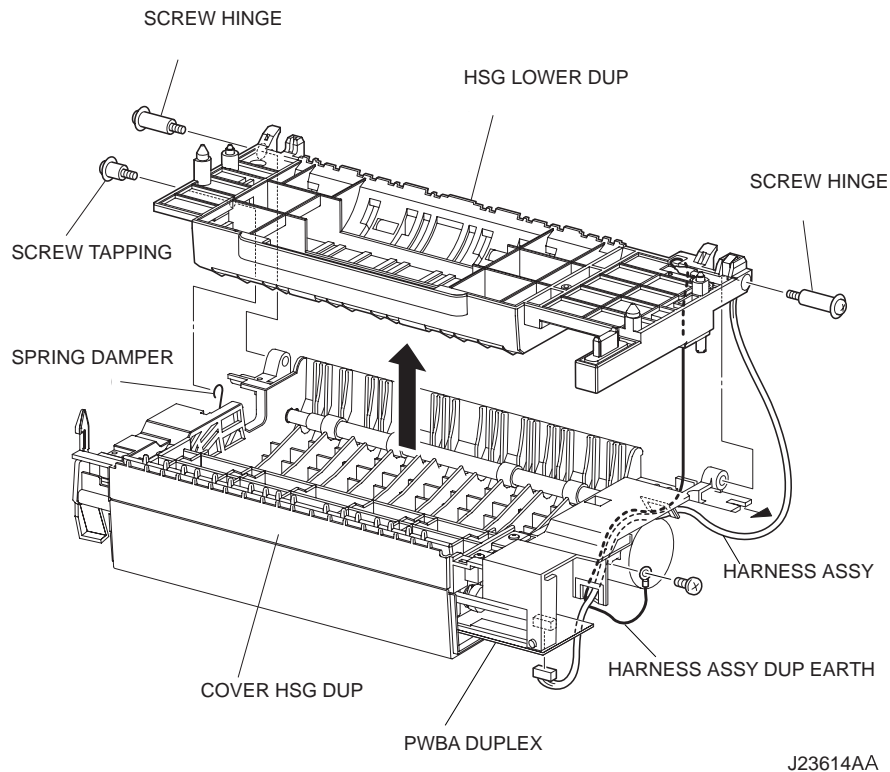


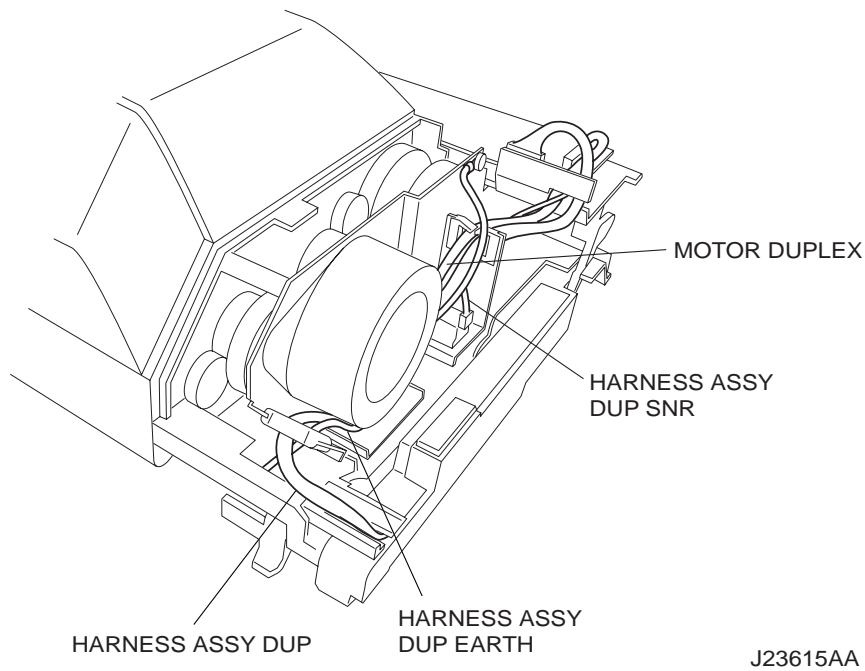
Replacement

- 1) Install the HSG UPPER ASSY to the COVER HSG DUP (PL 10.1) using the 4 screws (gold tapping, 8mm).

RRP10.3 HSG LOWER DUP (PL10.1)**Removal**

- 1) Remove the COVER LEFT (PL 10.1). (RRP10.9)
- 2) Remove the COVER RIGHT (PL 10.1). (RRP10.10)
- 3) Disconnect the connector (P/J50) of the HARNESS ASSY DUP (PL 10.1) from the PWBA DUPLEX (PL 10.1).
- 4) Remove the screw (silver, 6mm) securing the HARNESS ASSY DUP EARTH (PL 10.1).
- 5) Release the HARNESS ASSY DUP from the harness clamp.
- 6) Remove the SCREW TAPPING (PL 10.1) securing the SPRING DUMPER (PL 10.1).
- 7) Remove the 2 SCREW HINGEs (PL 10.1) securing the HSG LOWER DUP, and remove the HSG LOWER DUP from the COVER HSG DUP (PL 10.1).





Replacement

- 1) Install the HSG LOWER DUP to the COVER HSG DUP (PL 10.1) using the 2 SCREW HINGES (PL 10.1).
- 2) Install the SPRING DAMPER (PL 10.1) to the COVER HSG DUP using the SCREW TAPPING (PL 10.1).
- 3) Secure the HARNESS ASSY DUP (PL 10.1) using harness clamps as shown in the figure.
- 4) Secure the HARNESS ASSY DUP EARTH using the screw (silver, 6mm).
- 5) Connect the connector (P/J50) of the HARNESS ASSY DUP to the PWBA DUPLEX (PL 10.1).
- 6) Install the COVER RIGHT (PL 10.1). (RRP10.10)

NOTE

When installing, be sure to fit the positioning holes on the COVER RIGHT to the bosses on the COVER HSG DUP.

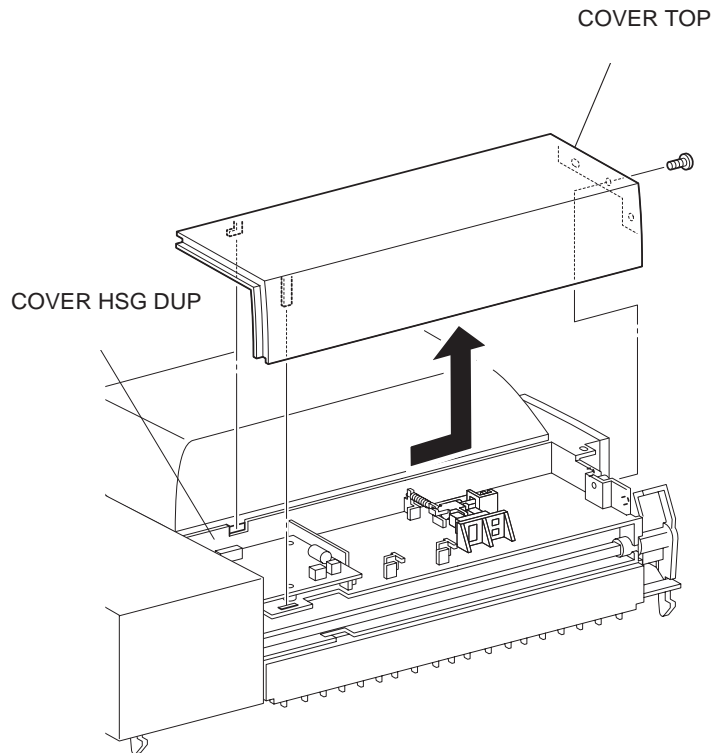
- 7) Install the COVER LEFT (PL 10.1). (RRP10.9)

NOTE

When installing, be sure to fit the positioning holes on the COVER LEFT to the bosses on the COVER HSG DUP.

RRP10.4 COVER TOP (PL10.1)**Removal**

- 1) Remove the COVER RIGHT (PL 10.1). (RRP10.10)
- 2) Remove the screw (gold tapping, 8mm) securing the COVER TOP to the COVER HSG DUP (PL 10.1).
- 3) Shift the COVER TOP in the direction of the arrow to release the 4 hooks, and remove the COVER TOP from the COVER HSG DUP.



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Replacement

- 1) Shift the COVER TOP in the opposite direction of the arrow to install it to the COVER HSG DUP (PL 10.1), and secure it using the 4 hooks.

NOTE

When installing, be sure to fit the positioning holes on the COVER TOP to the bosses on the COVER HSG DUP.

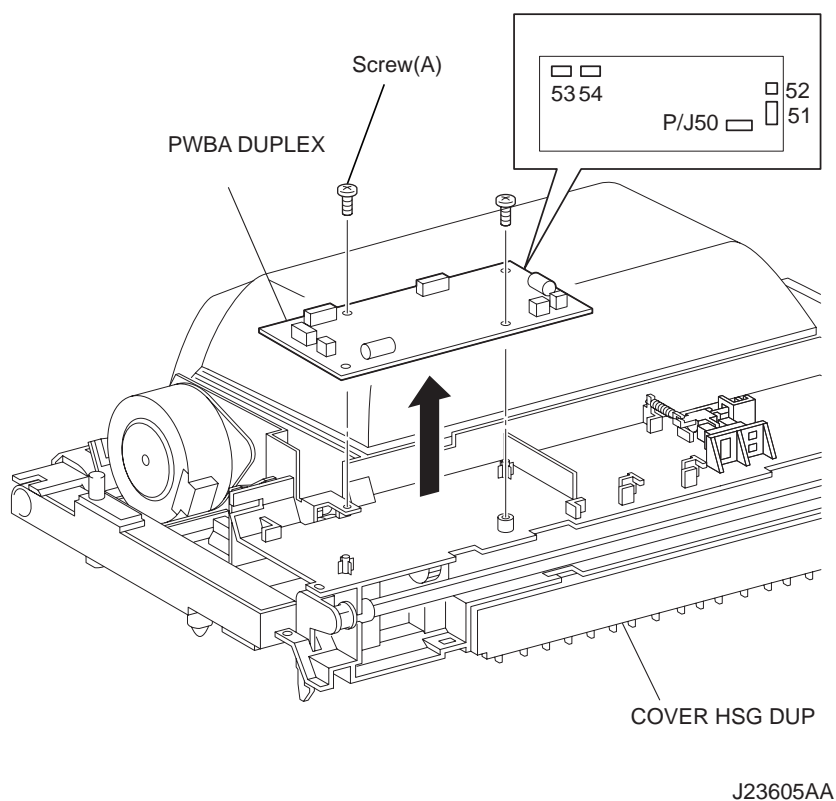
- 2) Install the COVER TOP to the COVER HSG DUP using the screw (gold tapping, 8mm).
- 3) Install the COVER RIGHT (PL 10.1). (RRP10.10)

NOTE

When installing, be sure to fit the positioning holes on the COVER RIGHT to the bosses on the COVER HSG DUP.

RRP10.5 PWBA DUPLEX (PL10.1)**Removal**

- 1) Remove the COVER LEFT (PL 10.1). (RRP10.9)
- 2) Remove the COVER RIGHT (PL 10.1). (RRP10.10)
- 3) Remove the COVER TOP (PL 10.1). (RRP10.4)
- 4) Disconnect the harness connectors from the connectors (P/J50, P/J51, P/J52, P/J53 and P/J54) on the PWBA DUPLEX.
- 5) Remove the 2 screws (gold tapping, 8mm x 1, gold, 6mm x 1) securing the PWBA DUPLEX to the COVER HSG DUP (PL 10.1).
- 6) Remove the PWA DUPLEX.

**Replacement**

- 1) Install the PWBA DUPLEX to the COVER DUPLEX (PL 10.1) using the 2 screws (gold tapping, 8mm x 1, gold, 6mm x 1).

NOTE

Install the PWA DUPLEX to the COVER DUPLEX in the direction shown in the figure.

NOTE

Be sure to tighten the screw (gold, 6mm) shown as Screw (A) in the figure.

- 2) Connect the harness connectors to the connectors (P/J50, P/J51, P/J52, P/J53 and P/J54) on the PWBA DUPLEX.
- 3) Install the COVER TOP (PL 10.1). (RRP10.4)

NOTE

When installing, be sure to fit the positioning holes on the COVER TOP to the bosses on the COVER HSG DUP.

- 4) Install the COVER RIGHT (PL 10.1). (RRP10.10)

NOTE

When installing, be sure to fit the positioning holes on the COVER RIGHT to the bosses on the COVER HSG DUP.

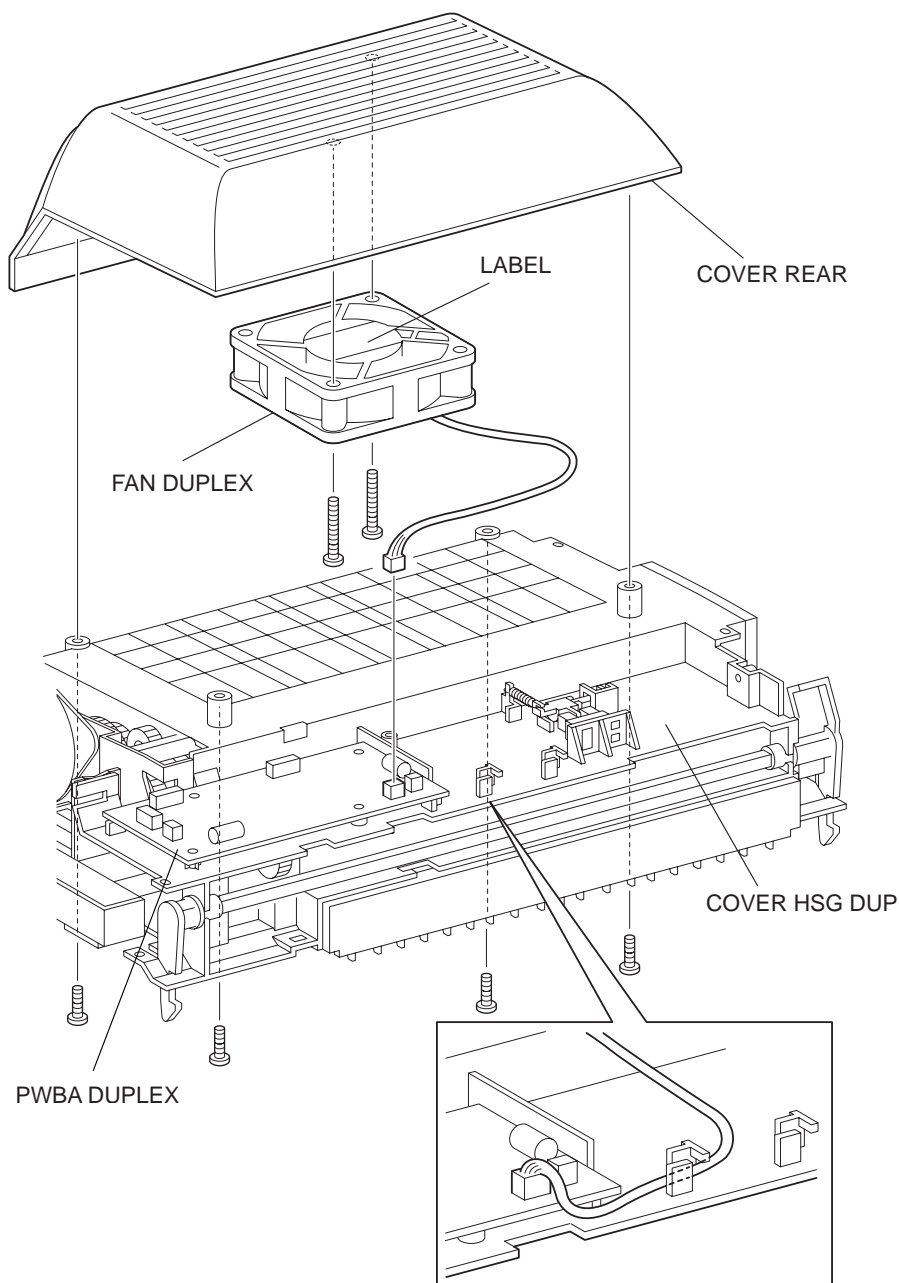
- 5) Install the COVER LEFT (PL 10.1). (RRP10.9)

NOTE

When installing, be sure to fit the positioning holes on the COVER LEFT to the bosses on the COVER HSG DUP.

RRP10.6 COVER REAR (PL10.1), FAN DUPLEX (PL10.1)**Removal**

- 1) Remove the COVER RIGHT (PL 10.1). (RRP10.10)
- 2) Remove the COVER TOP (PL 10.1). (RRP10.4)
- 3) Disconnect the harness connector from the connector (P/J54) on the PWBA DUPLEX (PL 10.1).
- 4) Release the harness of the FAN DUPLEX from the hook on the COVER HSG DUP (PL 10.1).
- 5) Remove the 4 screws securing the COVER REAR to the COVER HSG DUP and remove the COVER REAR.
- 6) Remove the 2 screws (gold tapping, 22mm) securing the FAN DUPLEX to the COVER REAR and remove the FAN DUPLEX.



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Replacement

- 1) 1) Install the FAN DUPLEX to the COVER REAR using the 2 screws (gold tapping, 22mm).

NOTE

When installing, be sure to install the FAN DUPLEX so that the label is facing outside.

- 2) Install the COVER REAR to the COVER HSG DUP using the 4 screws
- 3) Secure the harness of the FAN DUPLEX to the hook on the COVER HSG DUP.
- 4) Connect the harness connector to the connector (P/J54) on the PWBA DUPLEX (PL 10.1).
- 5) Install the COVER TOP (PL 10.1). (RRP10.4)

NOTE

When installing, be sure to fit the positioning holes on the COVER TOP to the bosses on the COVER HSG DUP.

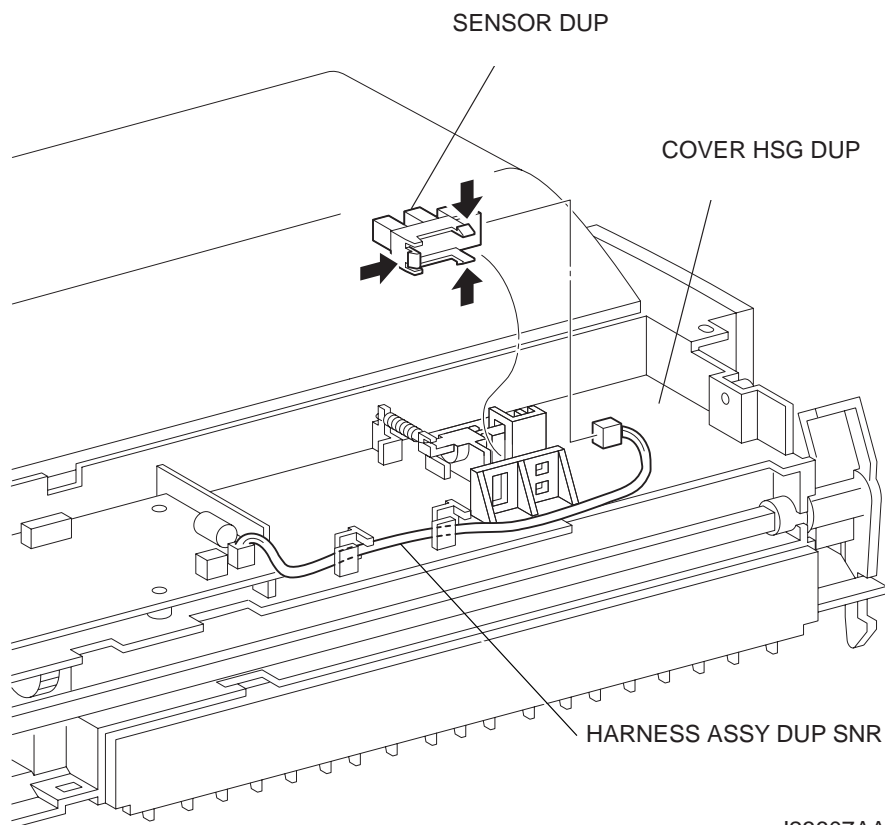
- 6) Install the COVER RIGHT (PL 10.1). (RRP10.10)

NOTE

When installing, be sure to fit the positioning holes on the COVER RIGHT to the bosses on the COVER HSG DUP.

RRP10.7 SENSOR DUP (PL10.1)**Removal**

- 1) Remove the COVER RIGHT (PL 10.1). (RRP10.10)
- 2) Remove the COVER TOP (PL 10.1). (RRP10.4)
- 3) Release the hooks of the SENSOR DUP, and remove it from the COVER HSG DUP (PL 10.1).
- 4) Disconnect the connector (P/J530) of the HARNESS ASSY DUP SNR (PL 10.1) from the SENSOR DUP.



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Replacement

- 1) Connect the connector (P/J 530) of the HARNESS ASSY DUP SNR (PL 10.1) to the SENSOR DUP.
- 2) Install the SENSOR DUP to the COVER HSG DUP (PL 10.1), and secure it with the hooks.
- 3) Install the COVER TOP (PL 10.1). (RRP10.4)

NOTE

When installing, be sure to fit the positioning holes on the COVER TOP to the bosses on the COVER HSG DUP.

- 4) Install the COVER RIGHT (PL 10.1). (RRP10.10)

NOTE

When installing, be sure to fit the positioning holes on the COVER RIGHT to the bosses on the COVER HSG DUP.

RRP10.8 ROLL DUP (PL10.1)**Removal**

- 1) Remove the COVER LEFT (PL 10.1). (RRP10.9)
- 2) Remove the COVER RIGHT (PL 10.1). (RRP10.10)
- 3) Remove the HSG UPPER ASSY (PL 10.1). (RRP10.2)
- 4) Remove the HSG LOWER DUP (PL 10.1). (RRP10.3)
- 5) Remove the 2 screws (gold tapping, 8mm) and the SCREW TAPPING (PL 10.1) securing the COVER DAMPER (PL 10.1) to the COVER HSG DUP (PL 10.1).
- 6) Remove the COVER DAMPER (PL 10.1) and SPRING DAMPER (PL 10.1) from the COVER HSG DUP.

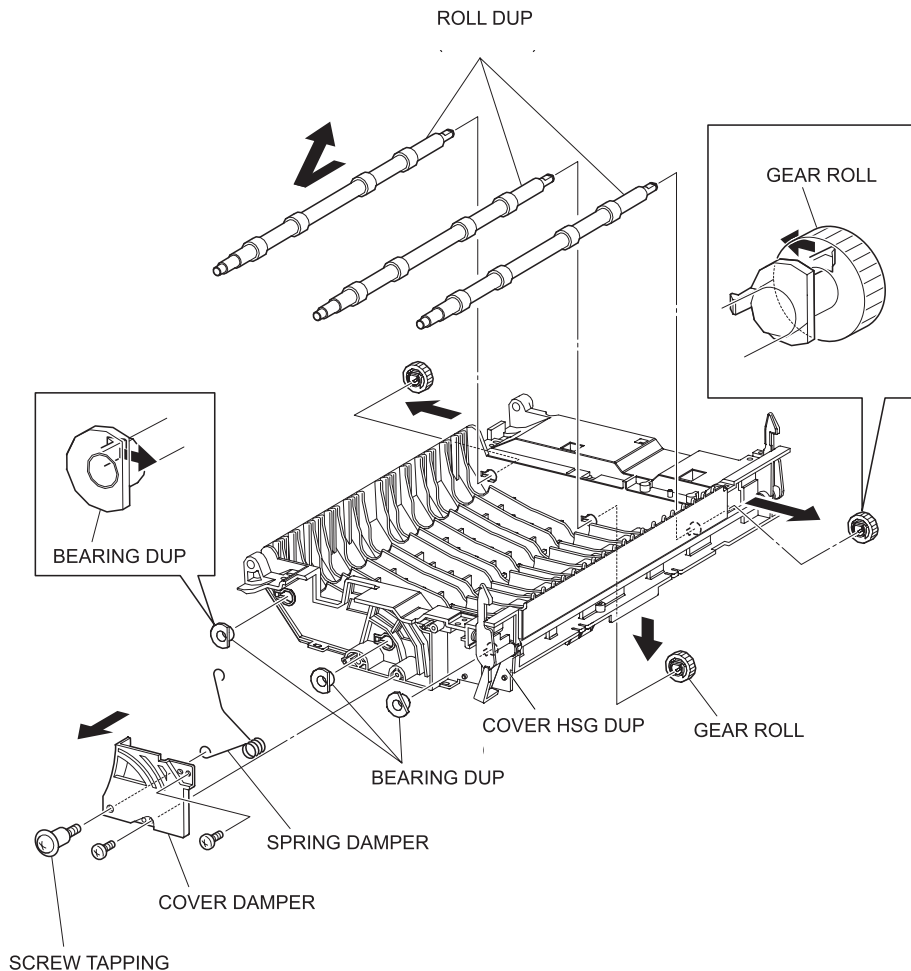
NOTE

For the following step, be careful not to lose any gear, as the working space is limited.

- 7) Release the hooks of 3 BEARING DUPS (PL 10.1) on the other side of the GEAR ROLL from the inside, and remove 3 BEARING DUPS from the COVER HSG DUP.
- 8) Release the hooks of 3 GEAR ROLLS (PL 10.1), and remove them from the ROLL DUP.
- 9) Remove 3 ROLL DUPS by moving them in the direction of the arrow.

NOTE

To avoid contamination when removing the ROLL DUP, do not touch the rubber rollers.



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Replacement

- 1) Move 3 ROLL DUPs in the opposite direction of the arrow, and install them to the BEARING DUP (PL 10.1) on the GEAR ROLL (PL 10.1) side

NOTE

To avoid contamination when installing the ROLL DUP, do not touch the rubber rollers.

- 2) Put the BEARING DUP into the ROLL DUP on the opposite side of the GEAR ROLL, and insert it into the hole on the COVER HSG DUP (PL12.1.18), and then secure it with the hook.
- 3) Lock 3 GEAR ROLLs to the ROLL DUP with hook.
- 4) Install the COVER DAMPER (PL 10.1) and SPRING DAMPER (PL 10.1) to the COVER HSG DUP using the 2 screws (gold tapping, 8mm) and the SCREW TAPPING (PL 10.1).

NOTE

The SCREW TAPPING securing the COVER DAMPER is tightened together with the SPRING DAMPER.

- 5) Install the HSG LOWER DUP (PL 10.1). (RRP10.3)
- 6) Install the HSG UPPER ASSY (PL 10.1). (RRP10.2)
- 7) Install the COVER RIGHT (PL 10.1). (RRP10.10)

NOTE

When installing, be sure to fit the positioning holes on the COVER RIGHT to the bosses on the COVER HSG DUP.

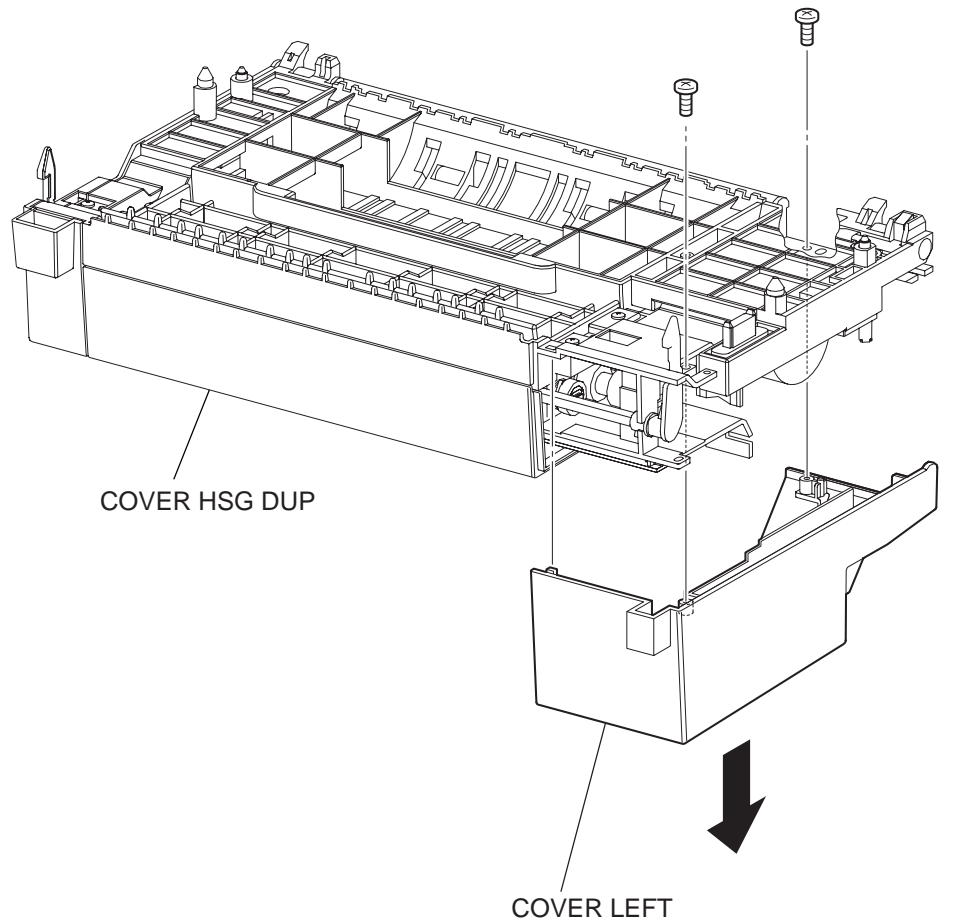
- 8) Install the COVER LEFT (PL 10.1). (RRP10.9)

NOTE

When installing, be sure to fit the positioning holes on the COVER LEFT to the bosses on the COVER HSG DUP.

RRP10.9 COVER LEFT (PL10.1)**Removal**

- 1) Remove the 2 screws (gold tapping, 8mm) securing the COVER LEFT.
- 2) Remove the COVER LEFT from the COVER HSG DUP (PL 10.1).



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Replacement

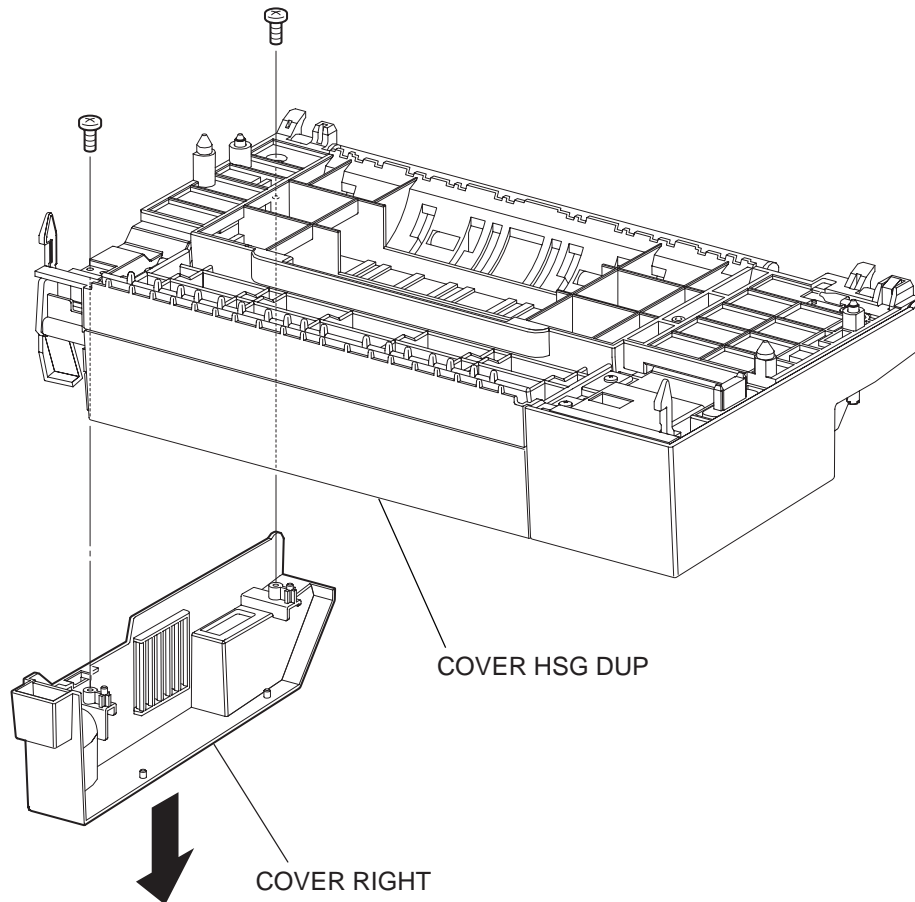
- 1) Install the COVER LEFT to the COVER HSG DUP (PL 10.1) using the 2 screws (gold tapping, 8mm).

NOTE

When installing, be sure to fit the positioning holes on the COVER LEFT to the bosses on the COVER HSG DUP.

RRP10.10 COVER RIGHT (PL10.1)**Removal**

- 1) Remove the 2 screws (gold tapping, 8mm) securing the COVER RIGHT.
- 2) 2) Remove the COVER RIGHT from the COVER HSG DUP (PL 10.1).



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Replacement

- 1) Install the COVER RIGHT to the COVER HSG DUP (PL 10.1) using the 2 screws (gold tapping, 8mm).

NOTE

When installing, be sure to fit the positioning holes on the COVER RIGHT to the bosses on the COVER HSG DUP.

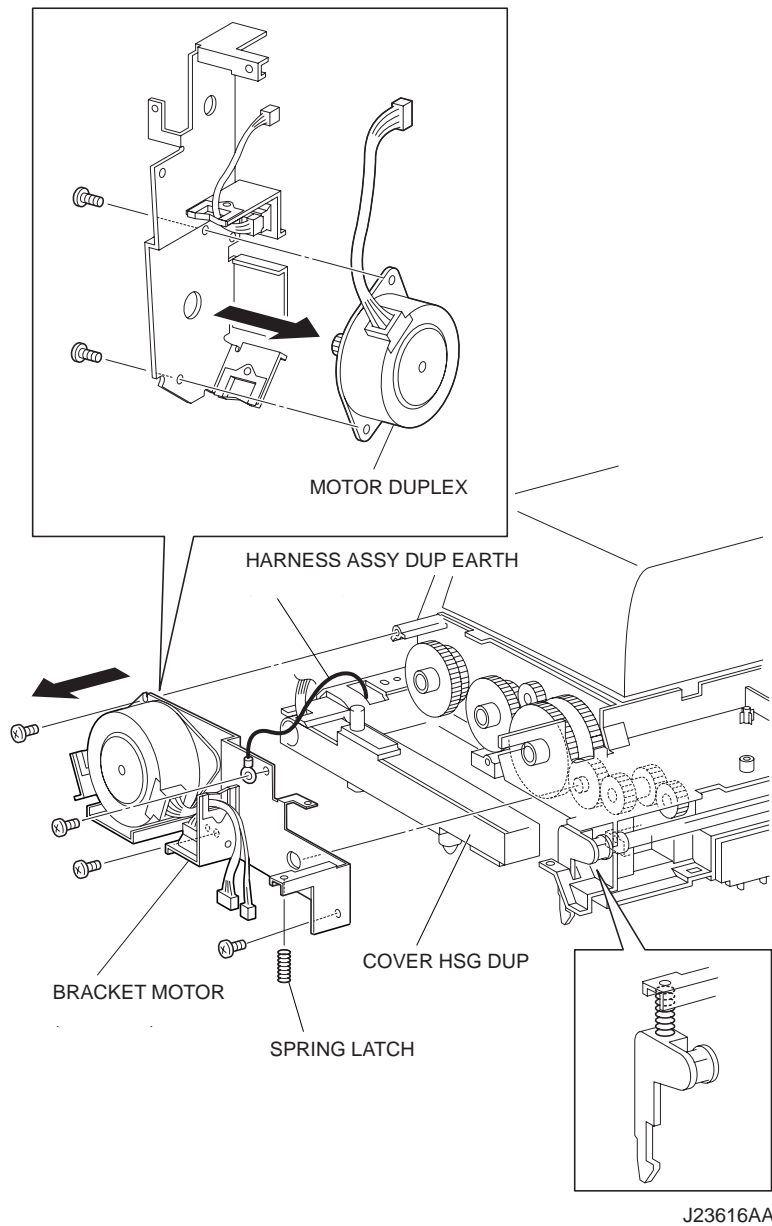
RRP10.11 MOTOR DUPLEX (PL10.1)**Removal**

- 1) Remove the COVER LEFT (PL 10.1). (RRP10.9)
- 2) Remove the COVER TOP (PL 10.1). (RRP10.4)
- 3) Remove the PWBA DUPLEX (PL 10.1). (RRP10.5)
- 4) Remove the screw (silver, 6mm) securing the HARNESS ASSY DUP EARTH (PL 10.1)
- 5) Remove the 3 screws (gold tapping, 8mm) securing the BRACKET MOTOR (PL 10.1) to the COVER HSG DUP (PL 10.1).
- 6) Remove the SPRING LATCH (PL 10.1) between the LEVER LATCH LEFT (PL 10.1) and BRACKET MOTOR (PL 10.1).
- 7) Remove the BRACKET MOTOR together with the MOTOR DUPLEX and SWITCH DUPLEX (PL 10.1).

NOTE

When removing the BRACKET MOTOR, be careful not to lose the gears attached to the COVER HSG DUP.

- 8) Remove the 2 screws (gold, 6mm) securing the MOTOR DUPLEX to the BRACKET MOTOR.
- 9) Remove the MOTOR DUPLEX.



Replacement

- 1) Install the MOTOR DUPLEX to the BRACKET MOTOR using the 2 screws (gold, 6mm).

NOTE

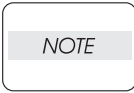
When installing the MOTOR DUPLEX, be careful in the installing direction.

- 2) Install the BRACKET MOTOR to the COVER HSG DUP (PL 10.1) using the 3 screws (gold tapping, 8mm).

NOTE

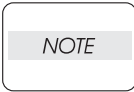
When installing the BRACKET MOTOR, be careful not to lose the gears.

- 3) Install the SPRING LATCH (PL 10.1) between the LEVER LATCH LEFT (PL 10.1) and BRACKET MOTOR.
- 4) Install the HARNESS ASSY DUP EARTH (PL 10.1) using the screw (silver, 6mm).
- 5) Install the PWBA DUPLEX (PL 10.1). (RRP10.5)



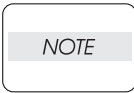
When installing, be careful in the installing direction.

6) Install the COVER TOP (PL 10.1). (RRP10.4)



When installing, be sure to fit the positioning holes on the COVER TOP to the bosses on the COVER HSG DUP.

7) Install the COVER LEFT (PL 10.1). (RRP10.9)



When installing, be sure to fit the positioning holes on the COVER LEFT to the bosses on the COVER HSG DUP.

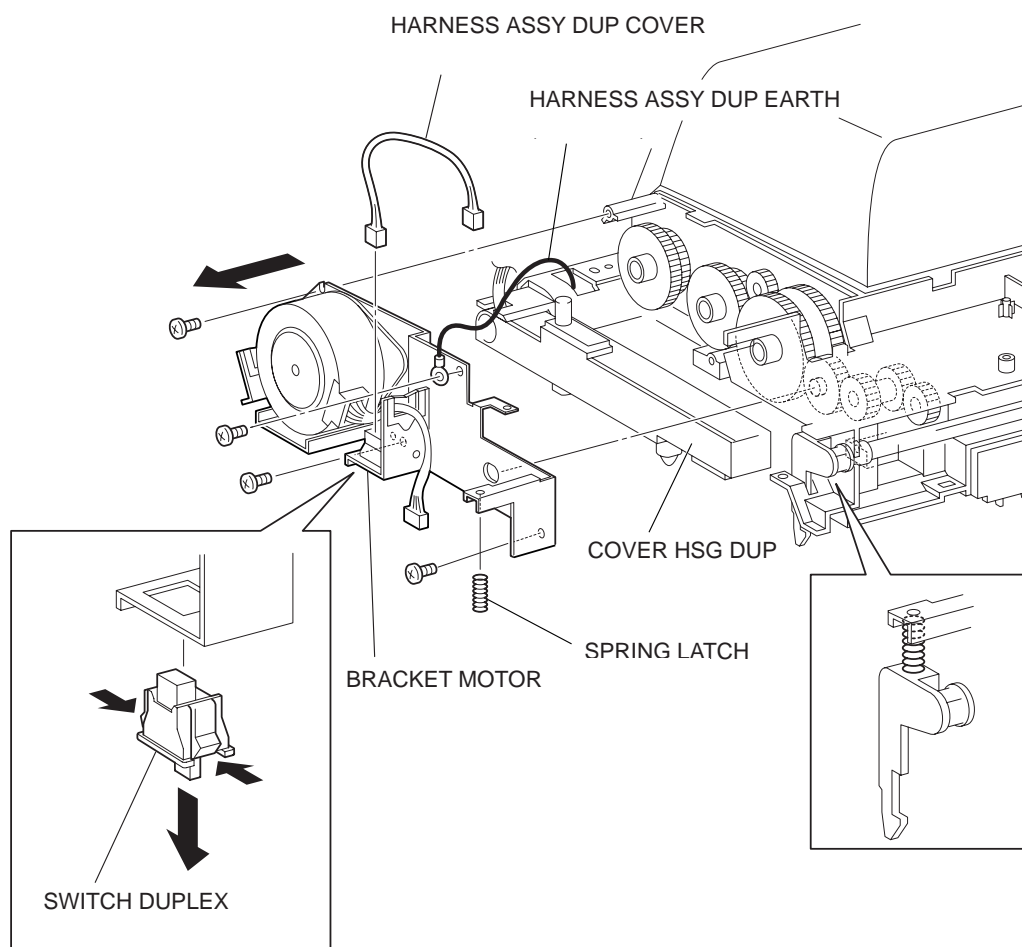
RRP10.12 SWITCH DUPLEX (PL10.1)**Removal**

- 1) Remove the COVER LEFT (PL 10.1). (RRP10.9)
- 2) Remove the COVER TOP (PL 10.1). (RRP10.4)
- 3) Remove the PWBA DUPLEX (PL 10.1). (RRP10.5)
- 4) Remove the screw (silver, 6mm) securing the HARNESS ASSY DUP EARTH (PL 10.1).
- 5) Remove the 3 screws (gold tapping, 8mm) securing the BRACKET MOTOR (PL 10.1) to the COVER HSG DUP (PL 10.1).
- 6) Remove the SPRING LATCH (PL 10.1) between the LEVER LATCH LEFT (PL 10.1) and BRACKET MOTOR.
- 7) Remove the BRACKET MOTOR together with the MOTOR DUPLEX (PL 10.1) and SWITCH DUPLEX.

NOTE

When removing the BRACKET MOTOR, be careful not to lose the gears attached to the COVER HSG DUP.

- 8) Disconnect the connector of the HARNESS ASSY DUP COVER (PL 10.1) from the connector (P/J52) of the SWITCH DUPLEX.
- 9) Release the hooks of the SWITCH DUPLEX, and remove it from the BRACKET MOTOR.



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Replacement

- 1) Install the SWITCH DUPLEX to the BRACKET MOTOR with hooks.

- 2) Connect the connector of the HARNESS ASSY DUP COVER (PL 10.1) to the connector (P/J52) of the SWITCH DUPLEX.
- 3) Install the BRACKET MOTOR to the COVER HSG DUP (PL 10.1) using the 3 screws (gold tapping, 8mm).

NOTE

When installing the BRACKET MOTOR, be careful not to lose the gears.

- 4) Install the SPRING LATCH (PL 10.1) between the LEVER LATCH LEFT (PL 10.1) and BRACKET MOTOR.
- 5) Install the HARNESS ASSY DUP EARTH (PL 10.1) using the screw (silver, 6mm).
- 6) Install the PWBA DUPLEX (PL 10.1). (RRP10.5)

NOTE

When installing the PWBA DUPLEX, be careful in the installing direction.

- 7) Install the COVER TOP (PL 10.1). (RRP10.4)

NOTE

When installing, be sure to fit the positioning holes on the COVER TOP to the bosses on the COVER HSG DUP.

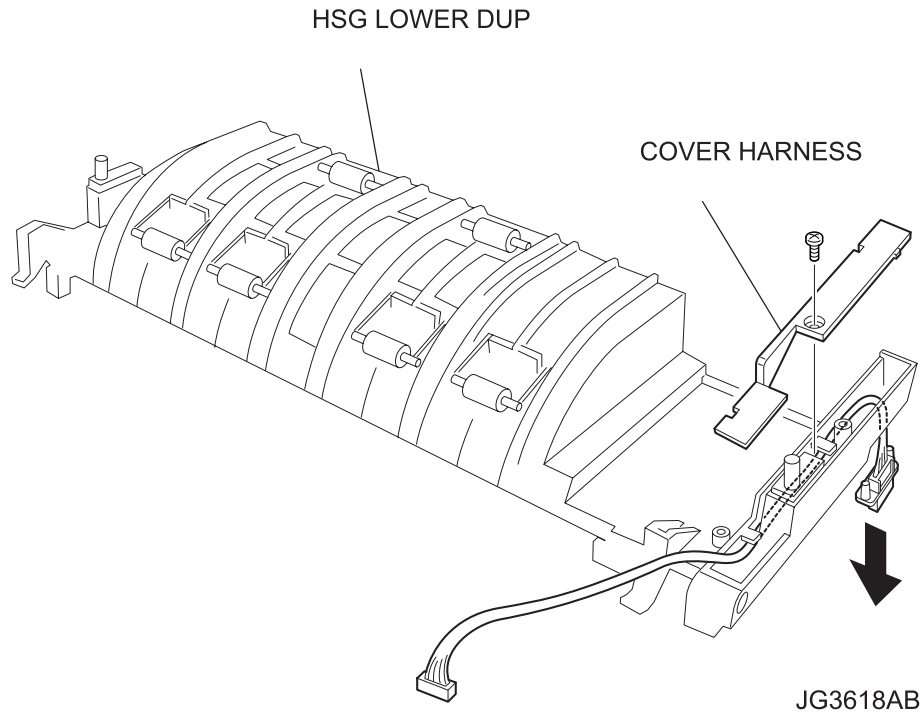
- 8) Install the COVER LEFT (PL 10.1). (RRP10.9)

NOTE

When installing, be sure to fit the positioning holes on the COVER LEFT to the bosses on the COVER HSG DUP.

RRP10.13 COVER HARNESS (PL10.1), HARNESS ASSY DUP (PL10.1)**Removal**

- 1) Remove the COVER LEFT (PL 10.1). (RRP10.9)
- 2) Remove the COVER RIGHT (PL 10.1). (RRP10.10)
- 3) Remove the HSG LOWER DUP (PL 10.1). (RRP10.3)
- 4) Remove the screw (gold tapping, 8mm) securing the COVER HARNESS R.
- 5) Release the 2 hooks of the COVER HARNESS, and remove it from the HSG LOWER DUP.
- 6) Disconnect the connector of the HARNESS ASSY DUP (PL 10.1) from the HSG LOWER DUP (PL 10.1), and remove the HARNESS ASSY DUP (PL 10.1).

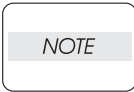
**Replacement**

- 1) Connect the connector of the HARNESS ASSY DUP (PL 10.1) to the HSG LOWER DUP (PL 10.1).
- 2) Install the COVER HARNESS to the HSG LOWER DUP, and fix it with the 2 hooks.
- 3) Secure the COVER HARNESS with the screw (gold tapping, 8mm).
- 4) Install the HSG LOWER DUP (PL 10.1). (RRP10.3)
- 5) Install the COVER RIGHT (PL 10.1). (RRP10.10)
- 6) Install the COVER LEFT (PL 10.1). (RRP10.9)

RRP11.OCT Option

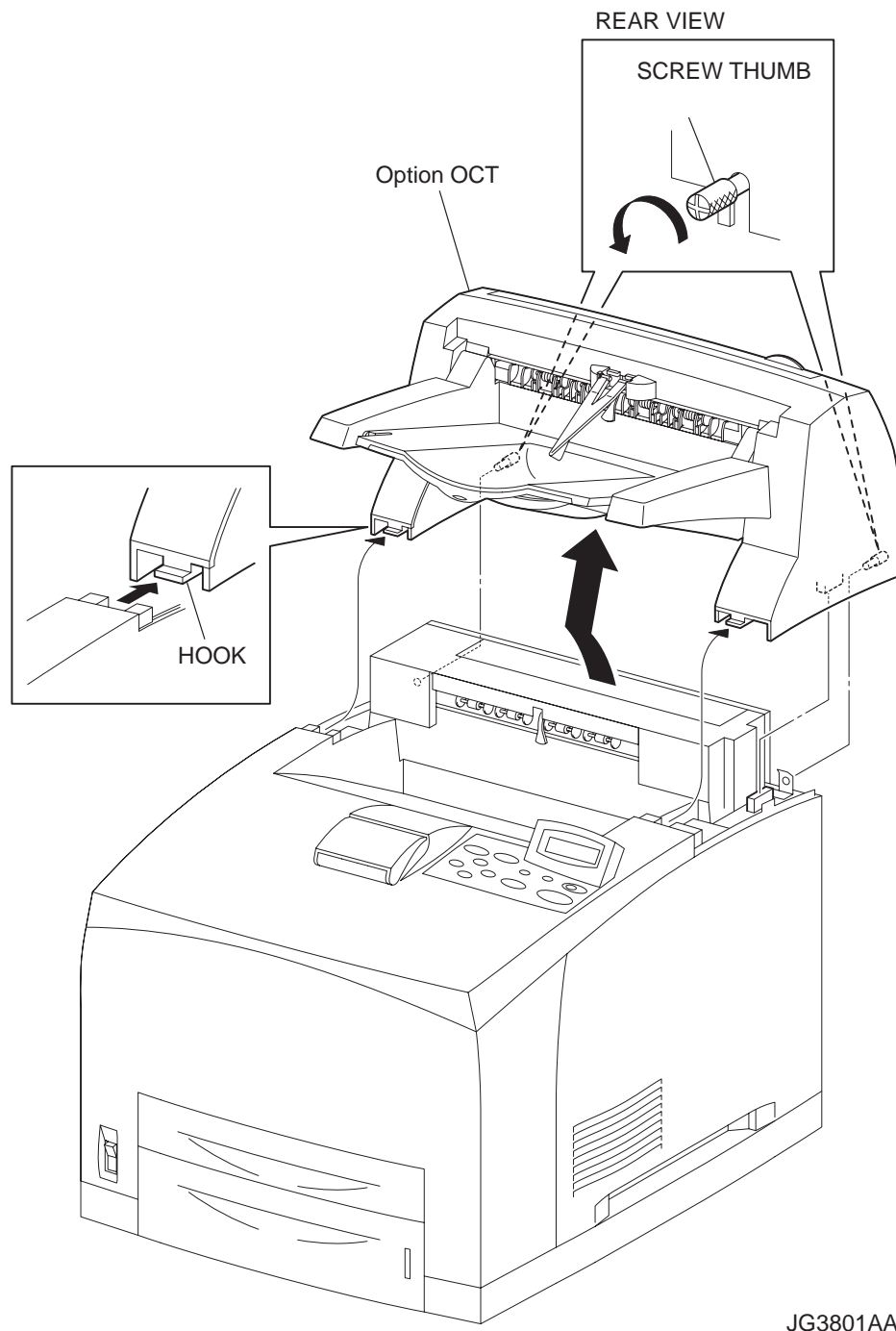
RRP11.1 OCT Option

Removal



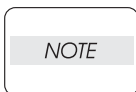
When removing the Option OCT, be careful not to drop the assembly.

- 1) Loosen the 2 SCREW THUNBs (PL 11.1) securing the OCT to the printer.
- 2) Lift up the OCT, and disconnect the connector (P/J3070) of the HARNESS ASSY OCT2 (PL 11.1) from the printer,
- 3) Release the 2 hooks at the bottom side of the COVER OCT (PL 11.1) from the printer, and remove the OCT.



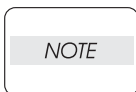
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Replacement



When installing the OCT, be careful not to drop the assembly.

- 1) Insert the 2 hooks at the bottom side of the COVER OCT (PL 11.1) into the holes of the printer, and place the Option OCT on the printer. Then, connect the connector (P/J3070) of the HARNESS ASSY OCT2 (PL 11.1) to the printer.



When installing, be sure to install the hooks at the bottom side of the Option OCT into the holes of the printer.

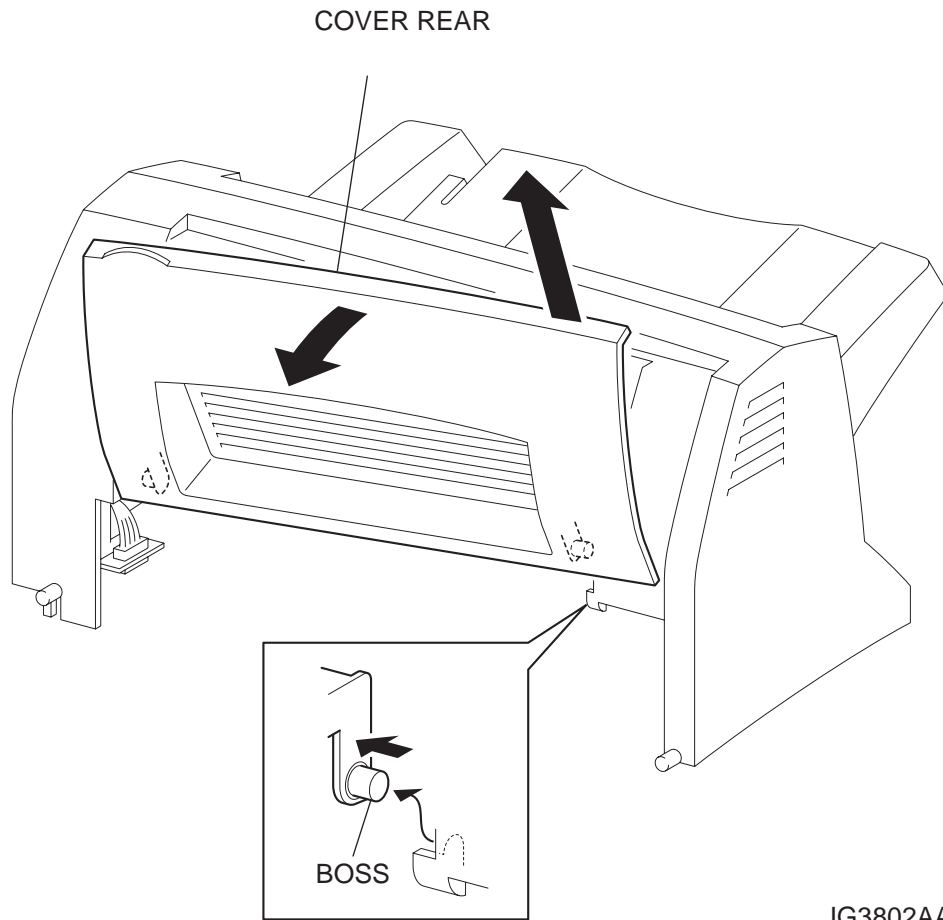
- 2) Fasten the Option OCT to the printer by tightening the 2 SCREW THUMBS (PL 11.1).

NOTE

The SCREW THUMB should be completely tightened to fasten the Option OCT.

RRP11.2 COVER REAR (PL11.1)**Removal**

- 1) Move the COVER REAR in the direction of the arrows, and remove the bosses on both sides of the COVER REAR from the COVER OCT (PL 11.1), and then remove the COVER REAR.



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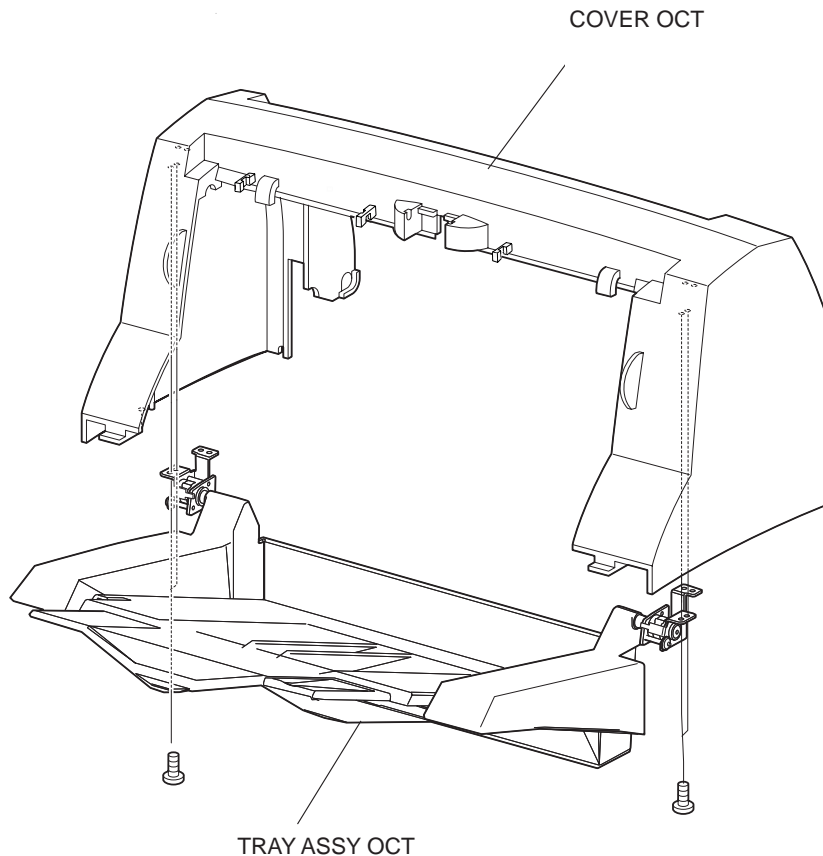
Replacement

- 1) Move the COVER REAR in the opposite direction of the arrows, and insert the bosses on both side of the COVER REAR to the COVER OCT (PL 11.1)

RRP11.3 TRAY ASSY OCT (PL11.1)

Removal

- 1) Remove the COVER REAR (PL 11.1). (RRP11.2)
- 2) Remove the COVER OCT (PL 11.1). (RRP11.4)
- 3) Remove the 2 screws (gold tapping, 8mm) on both sides securing the TRAY ASSY OCT to the removed COVER OCT, and remove the TRAY ASSY OCT from the COVER OCT.



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Replacement

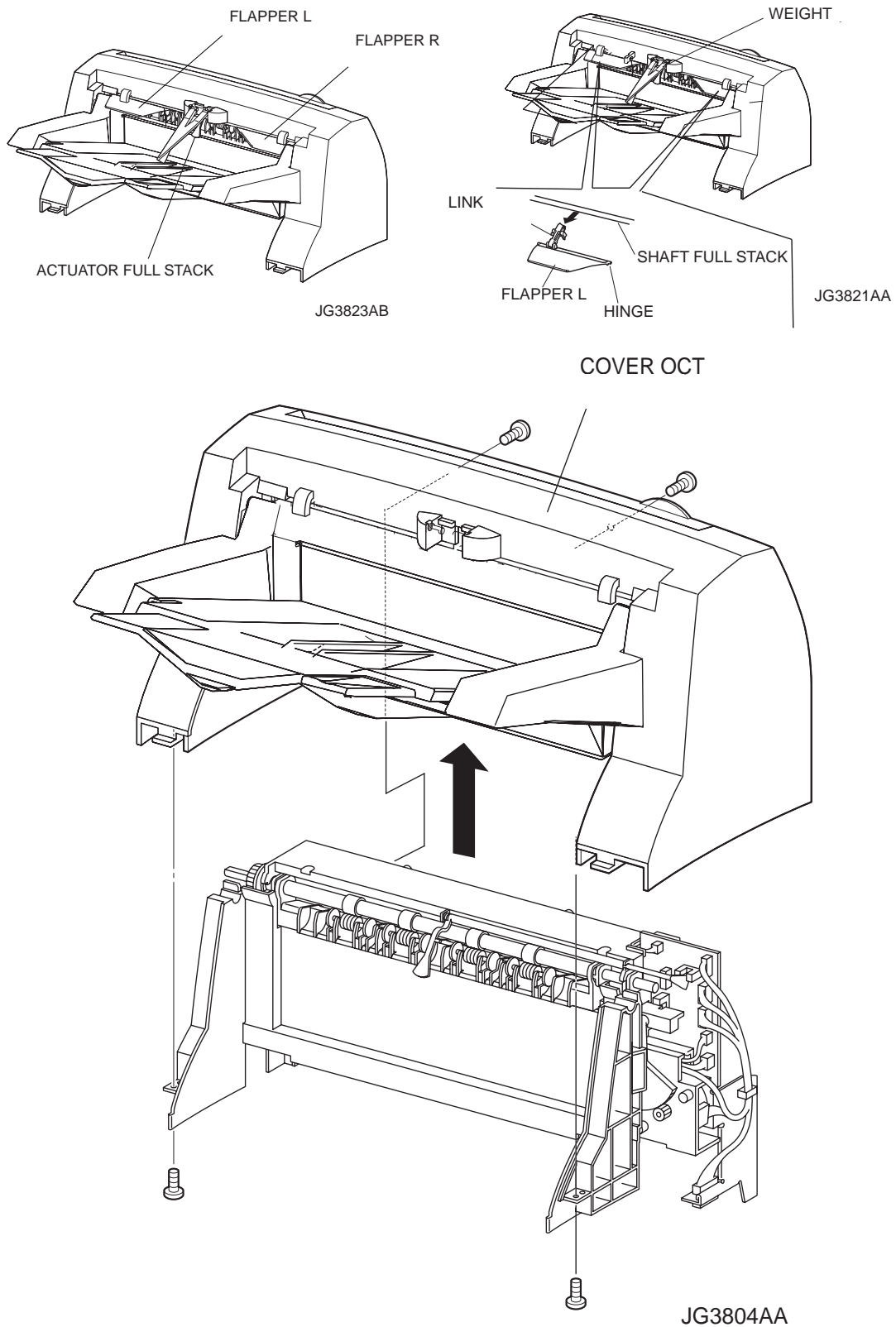
- 1) Install the TRAY ASSY OCT to the COVER OCT (PL 11.1) using the 2 screws (gold tapping, 8mm) on both sides.
- 2) Install the COVER OCT. (RRP11.4)
- 3) Install the COVER REAR (PL 11.1). (RRP11.2)

RRP11.4 COVER OCT (PL11.1)**Removal**

- 1) Remove the COVER REAR (PL 11.1). (RRP11.2)
- 2) Remove the WEIGHT (PL 11.1).
- 3) Remove the hinges on both sides of the FLAPPER L (PL 11.1) from the COVER OCT (PL 11.1).
- 4) Remove the LINK (PL 11.1) attached to the FLAPPER L from the SHAFT FULL STACK (PL 11.1).
- 5) Remove the hinges on both sides of the FLAPPER R (PL 11.1) from the COVER OCT.
- 6) Remove the LINK attached to the FLAPPER R from the ACTUATOR FULL STACK (PL 11.1).
- 7) Remove the 2 screws (gold tapping, 8mm) at the rear side of the Option OCT securing the COVER OCT to the Option OCT.
- 8) Remove the 2 screws (gold tapping, 8mm) at the bottom side of the Option OCT securing the COVER OCT to the Option OCT.
- 9) Open TRAY ASSY OCT (PL 11.1) to almost 90 degrees, lift COVER OCT with being set to TRAY ASSY OCT, and remove from the body.

NOTE

When lifting COVER OCT, be careful not to break ACTUATOR FULL STACK by TRAY ASSY OCT.



Replacement

- 1) Install the COVER OCT to the Option OCT.
- 2) Secure the COVER OCT to the Option OCT using the 2 screws (gold tapping, 8mm) at the bottom.

- 3) Secure the COVER OCT to the Option OCT using the 2 screws (gold tapping, 8mm) at the rear.
- 4) Install the LINK (PL 11.1) attached with the FLAPPER R (PL 11.1) to the ACTUATOR FULL STACK (PL 11.1) from under slanting direction, and install the hinges on both sides of the FLAPPER R to the COVER OCT.
- 5) Similarly, install the LINK attached with the FLAPPER L (PL 11.1) to the SHAFT FULL STACK (PL 11.1) from under slanting direction, and install the hinges on both sides of the FLAPPER L to the COVER OCT.
- 6) Install the WEIGHT (PL 11.1).
- 7) Install the COVER REAR (PL 11.1). (RRP11.2)

NOTE

After installation, when the FLAPPER L is moved with a finger, make sure that the ACTUATOR FULL STACK moves together with the FLAPPER L. Also make sure that FLAPPER R operates smoothly.

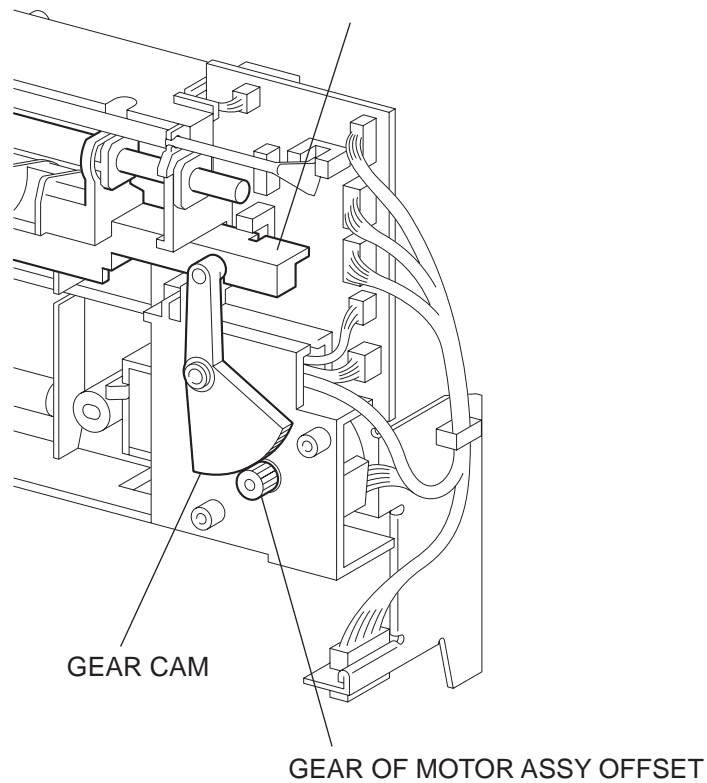
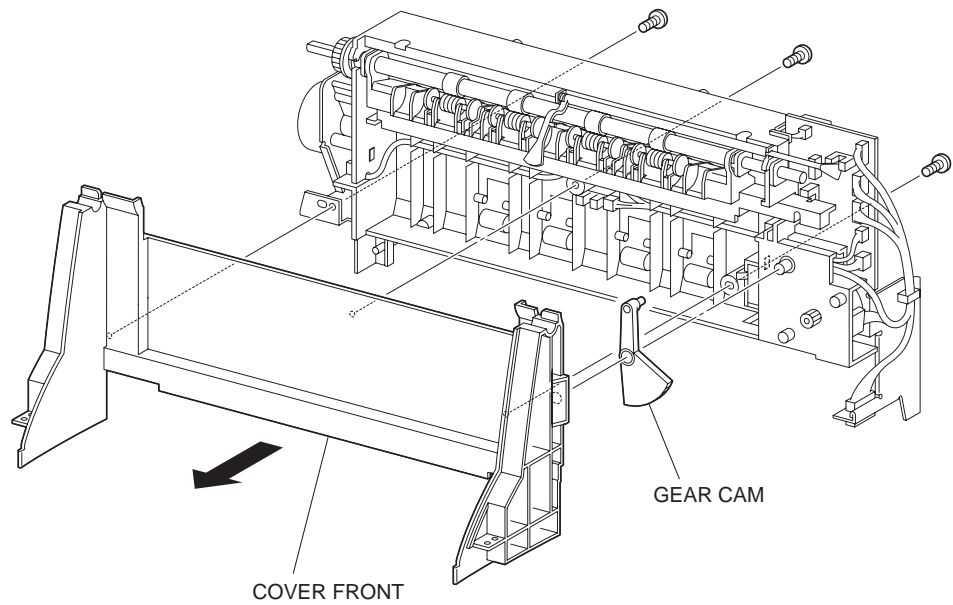
RRP11.5 COVER FRONT (PL11.1)

Removal

- 1) Remove the COVER REAR (PL 11.1). (RRP11.2)
- 2) Remove the COVER OCT (PL 11.1). (RRP11.4)
- 3) Remove the 3 screws (gold tapping, 8mm) securing the COVER FRONT to the Option OCT and remove the COVER FRONT.

NOTE

When removing the COVER FRONT, the GEAR CAM (PL 11.1) comes off. Be careful not to lose it.



Replacement

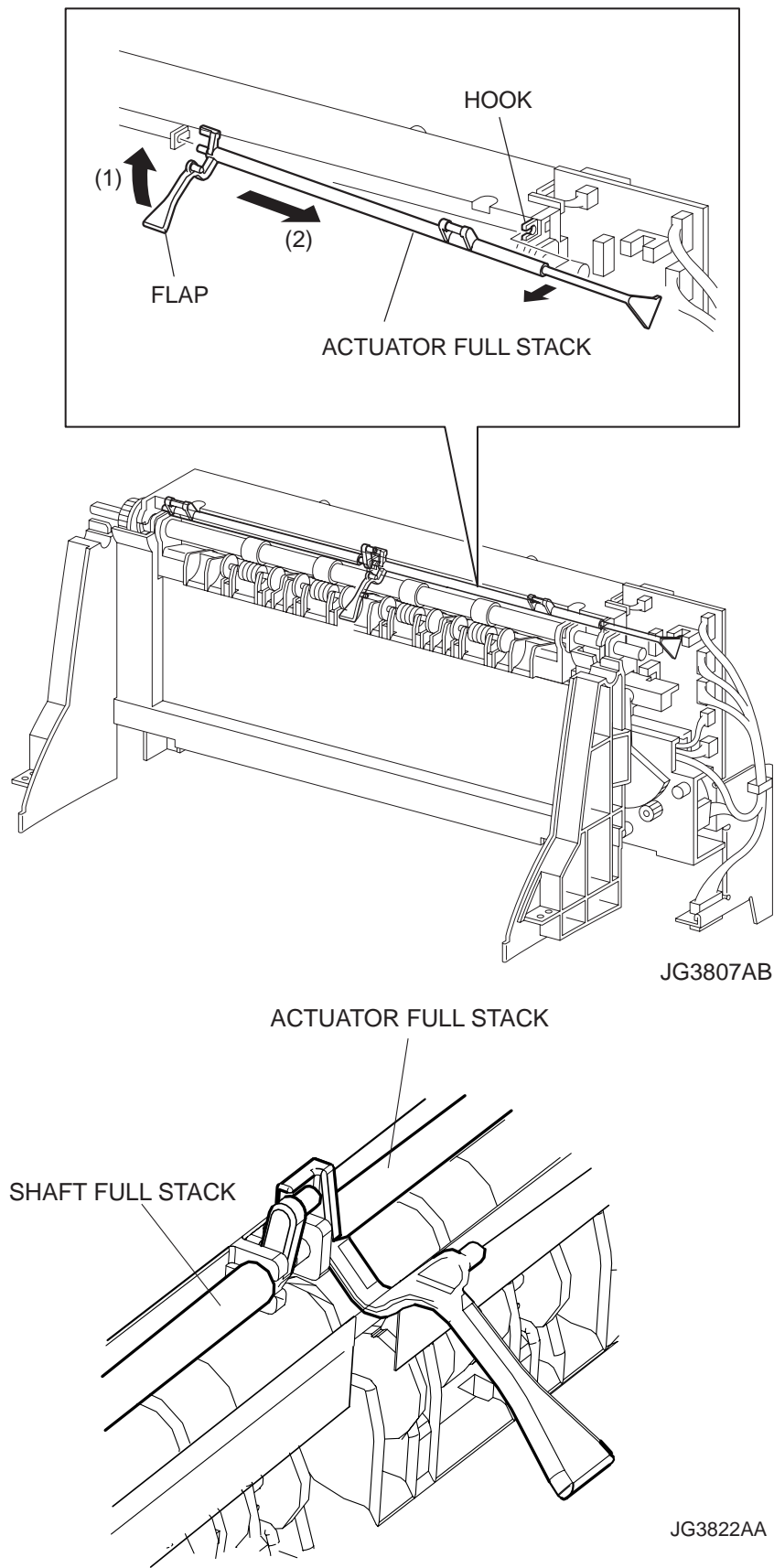
- 1) Make sure that the GEAR CAM (PL 11.1) and the GEAR of the MOTOR ASSY OFFSET (PL 11.1) are engaged, and the boss of the GEAR CAM is in the groove of the CHUTE OFFSET (PL 11.1).
- 2) Secure the COVER FRONT to the Option OCT using the 3 screws (gold tapping, 8mm).

- 3) Install the COVER OCT (PL 11.1). (RRP11.4)
- 4) Install the COVER REAR (PL 11.1). (RRP11.2)

RRP11.6 ACTUATOR FULL STACK (PL11.1)

Removal

- 1) Remove the COVER REAR (PL 11.1). (RRP11.2)
- 2) 2) Remove the COVER OCT (PL 11.1). (RRP11.4)
- 3) 3) After lifting up the flap of the ACTUATOR FULL STACK in the direction of the arrow (1), remove the hook first, and then move it in the direction of the arrow (2) to remove from the Option OCT.



Replacement

- 1) Lift up the ACTUATOR FULL STACK in the direction of the arrow (1), and insert it to the hook. Move the ACTUATOR FULL STACK in the opposite direction of the arrow (2) to install.

NOTE

When installing the ACTUATOR FULL STACK to the Option OCT, combine it with the SHAFT FULL STACK as shown in the figure.

- 2) Install the COVER OCT (PL 11.1). (RRP11.4)
- 3) Install the COVER REAR (PL 11.1). (RRP11.2)

NOTE

After installation, when the FLAPPER L is moved with a finger, make sure that the ACTUATOR FULL STACK moves together with the FLAPPER L. Also make sure that FLAPPER R operates smoothly.

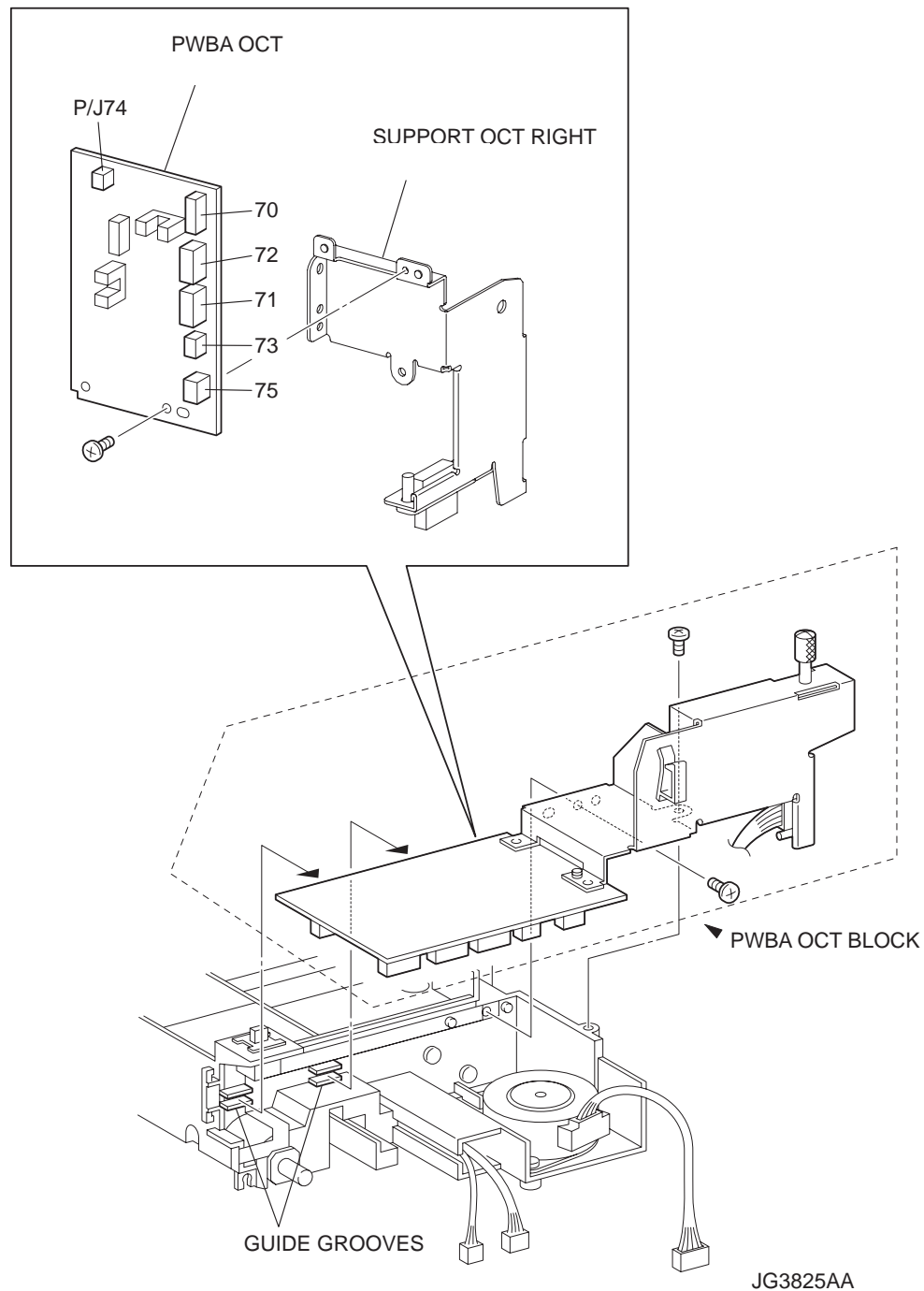
RRP11.7 PWBA OCT (PL11.1)**Removal**

- 1) Remove the COVER REAR (PL 11.1). (RRP11.2)
- 2) Remove the COVER OCT (PL 11.1). (RRP11.4)
- 3) Remove the ACTATOR FULL STACK in order to prevent from breaking ACTUATOR FULL STACK (PL 11.1).
- 4) Release the harness connected to the S/W REAR COVER (PL 11.1) from the clamp.

NOTE

When disconnecting a harness connector from PWBA OCT shown below, disconnect it by securing PWBA OCT with your hand.

- 5) Disconnect the harness connectors from the connectors (P/J70, P/J71, P/J72, P/J73, P/J74 and P/J75) on the PWBA OCT.
- 6) Remove 2 screws (gold tapping, 8mm) securing the PWBA OCT unit to the HOUSING OCT (PL 11.1).
- 7) Remove the PWBA OCT unit.
- 8) Remove the screw (silver, 6mm) securing the PWBA OCT to the SUPPORT OCT RIGHT (PL 11.1) of the PWBA OCT unit.
- 9) Remove the PWBA OCT.



Replacement

- 1) Install the PWBA OCT to the SUPPORT OCT RIGHT (PL 11.1) using the screw (silver, 6mm).
- 2) Install the SUPPORT OCT RIGHT attached with the PWBA OCT to the Option OCT using 2 screws (gold tapping, 8mm).

NOTE

When installing, be sure to install the PWBA OCT into the two guiding ditches of the Option OCT.

NOTE

When installing, be sure to install the SHUTTER portion of the ACTUATOR FULL STACK (PL 11.1) into the photo interrupter on the PWBA OCT.

- 3) Connect the harness connectors to the connectors (P/J70, P/J71, P/J72, P/J73, P/J74 and P/J75) on the PWBA OCT.

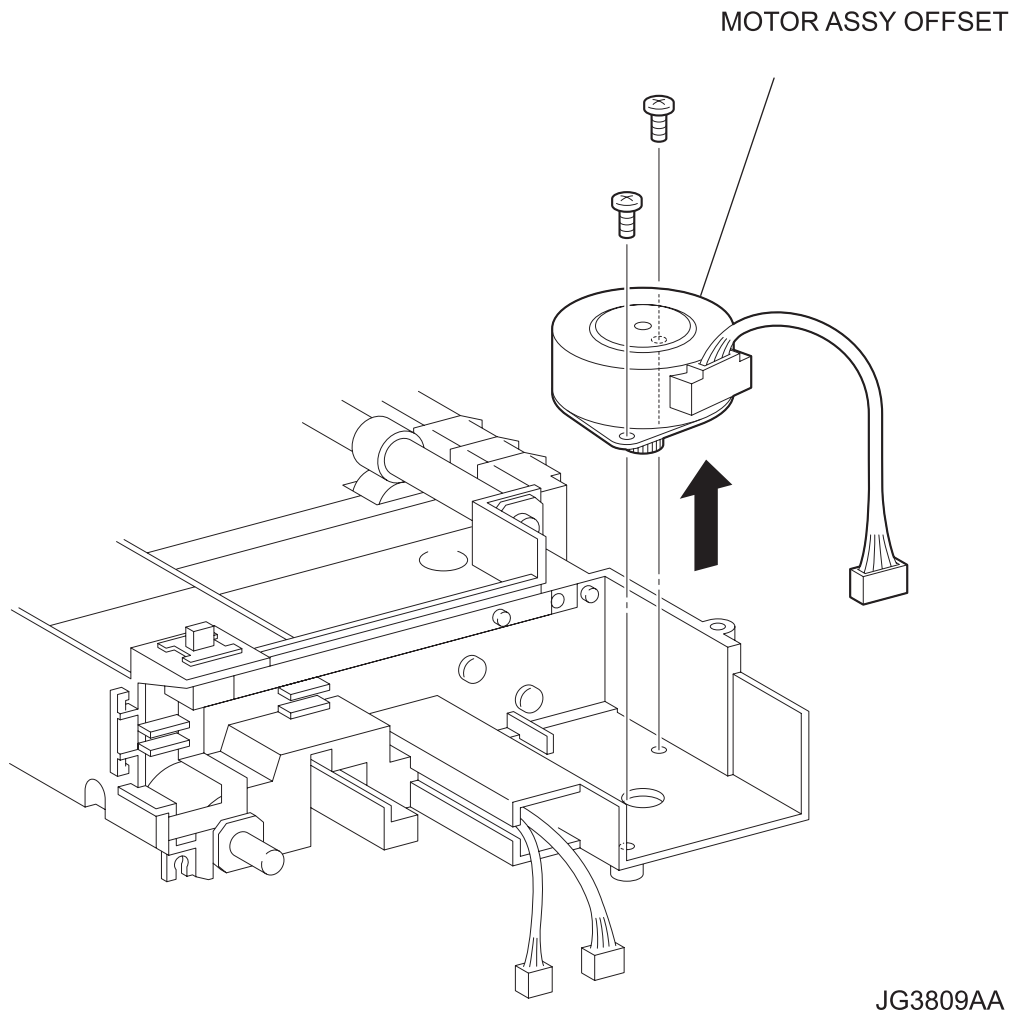
NOTE

When connecting a harness connector, connect it by securing PWBA OCT with your hand.

- 4) Secure the harness connected to the S/W REAR COVER (PL 11.1) using clamp.
- 5) Install the COVER FRONT (PL 11.1). (RRP11.5)
- 6) Install the COVER OCT (PL 11.1). (RRP11.4)
- 7) Install the COVER REAR (PL 11.1). (RRP11.2)

RRP11.8 MOTOR ASSY OFFSET (PL11.1)**Removal**

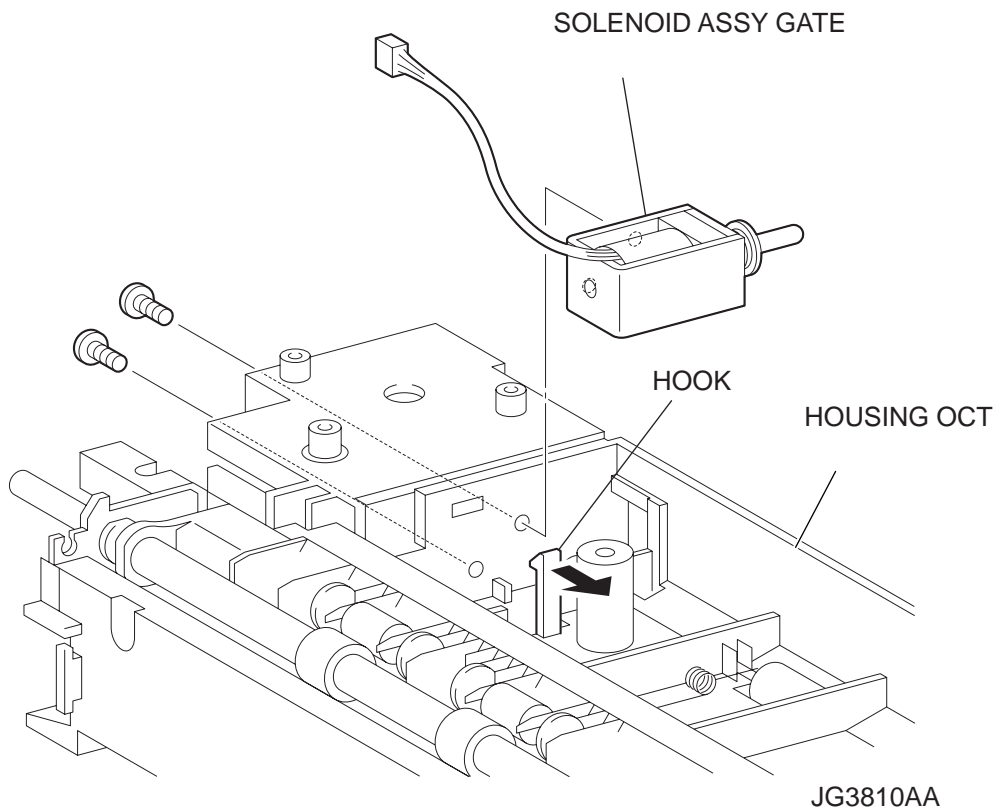
- 1) Remove the COVER REAR (PL 11.1). (RRP11.2)
- 2) Remove the COVER OCT (PL 11.1). (RRP11.4)
- 3) Remove the PWBA OCT (PL 11.1). (RRP11.7)
- 4) Remove the 2 screws (gold tapping, 8mm) securing the MOTOR ASSY OFFSET to the Option OCT.
- 5) Remove the MOTOR ASSY OFFSET.

**Replacement**

- 1) Install the MOTOR ASSY OFFSET to the Option OCT using the 2 screws (gold tapping, 8mm).
- 2) Install the PWBA OCT (PL 11.1). (RRP11.7)
- 3) Install the COVER OCT (PL 11.1). (RRP11.4)
- 4) Install the COVER REAR (PL 11.1). (RRP11.2)

RRP11.9 SOLENOID ASSY GATE (PL11.1)**Removal**

- 1) Remove the COVER REAR (PL 11.1). (RRP11.2)
- 2) Remove the COVER OCT (PL 11.1). (RRP11.4)
- 3) Remove the COVER FRONT (PL 11.1). (RRP11.5)
- 4) Remove the PWBA OCT (PL 11.1). (RRP11.7)
- 5) Remove the MOTOR ASSY OFFSET (PL 11.1). (RRP11.8)
- 6) Remove the 2 screws (gold, 6mm) securing the SOLENOID ASSY GATE to the Option OCT.
- 7) Release the hook securing the SOLENOID ASSY GATE, and remove the SOLENOID ASSY GATE.

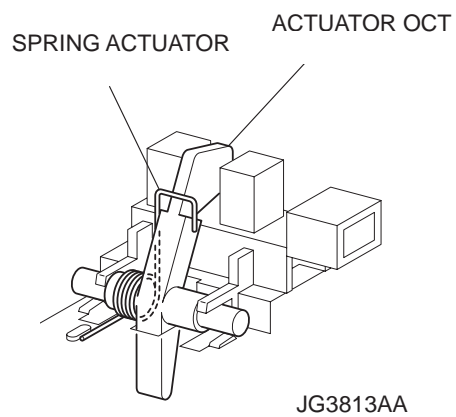
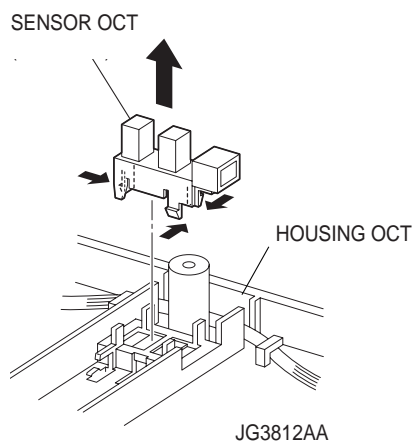
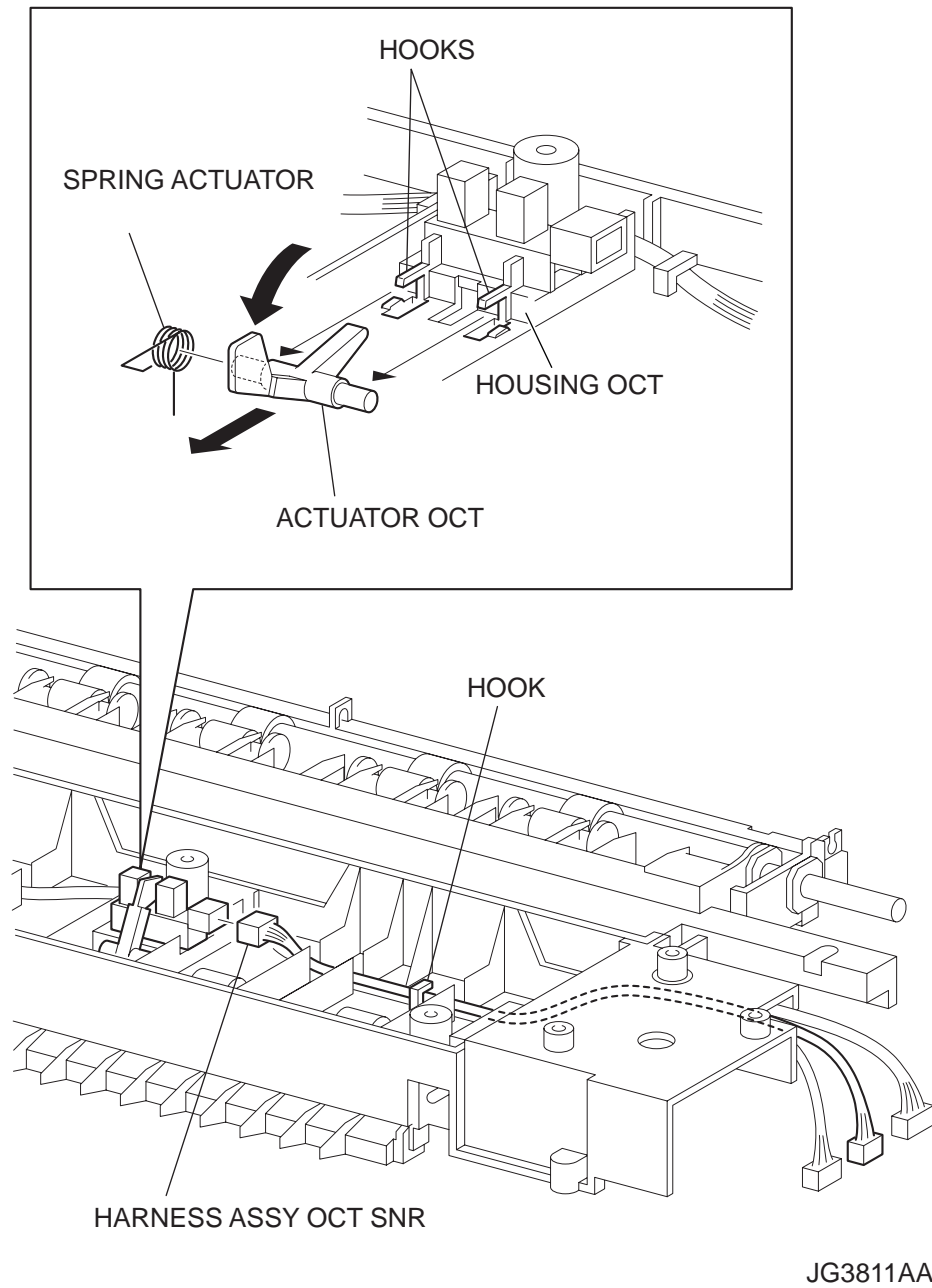
**Replacement**

- 1) Secure the SOLENOID ASSY GATE with the hook, and secure it using the 2 screws (gold, 6mm).
- 2) Install the MOTOR ASSY OFFSET (PL 11.1). (RRP11.8)
- 3) Install the PWBA OCT (PL 11.1). (RRP11.7)
- 4) Install the COVER FRONT (PL 11.1). (RRP11.5)
- 5) Install the COVER OCT (PL 11.1). (RRP11.4)
- 6) Install the COVER REAR (PL 11.1). (RRP11.2)

RRP11.10 SENSOR OCT (PL11.1)

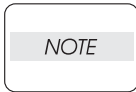
Removal

- 1) Remove the COVER REAR (PL 11.1). (RRP10.6)
- 2) Remove the COVER OCT (PL 11.1). (RRP11.4)
- 3) Remove the COVER FRONT (PL 11.1). (RRP11.5)
- 4) Release the HARNESS ASSY OCT SNR (PL 11.1) from the hooks.
- 5) Disconnect the connector (P/J730) of the HARNESS ASSY OCT SNR from the SENSOR OCT.
- 6) Remove the SPRING ACTUATOR (PL 11.1).
- 7) Shift the ACTUATOR OCT (PL 11.1) in the direction of the arrows to remove it from the hooks on both sides .
- 8) Release the hooks of the SENSOR OCT, and remove it from the HOUSING OCT (PL 11.1).



Replacement

- 1) Install the SENSOR OCT to the HOUSING OCT (PL 11.1), and secure it with the hooks.
- 2) Move the ACTUATOR OCT in the opposite direction of the arrows, and secure it with the hooks.
- 3) Install the SPRING ACTUATOR (PL 11.1).



Install the SPRING ACTUATOR to the ACTUATOR OCT as shown in the figure.

- 4) Connect the connector (P/J730) of the HARNESS ASSY OCR SNR (PL 11.1) to the SENSOR OCT.
- 5) Secure the HARNESS ASSY OCT SNR with the hooks.
- 6) Install the COVER FRONT (PL 11.1). (RRP11.5)
- 7) Install the COVER OCT (PL 11.1). (RRP11.4)
- 8) Install the COVER REAR (PL 11.1). (RRP11.2)

RRP11.11 ROLL OCT LOWER (PL11.1)**Removal**

- 1) Remove the COVER REAR (PL 11.1). (RRP11.2)
- 2) Remove the COVER OCT (PL 11.1). (RRP11.4)
- 3) Remove the 2 screws (gold tapping, 8mm, gold 6mm) securing the SUPPORT OCT LEFT (PL 11.1).
- 4) Remove the 2 screws (gold tapping, 8mm) securing the BRACKET MOTOR OCT (PL 11.1).
- 5) Disconnect the harness conector of the MOTOR ASSY OCT , and remove the BRACKET MOTOR OCT together with the MOTOR ASSY OCT (PL 11.1).
- 6) Remove the GEAR 45 (PL 11.1), GEAR 19/37 (PL 11.1) and GEAR 19 (PL 11.1).
- 7) Release the hook of the BEARING ROLL (PL 11.1) on the side of GEAR 19 , and remove it from the HOUSING OCT (PL 11.1).

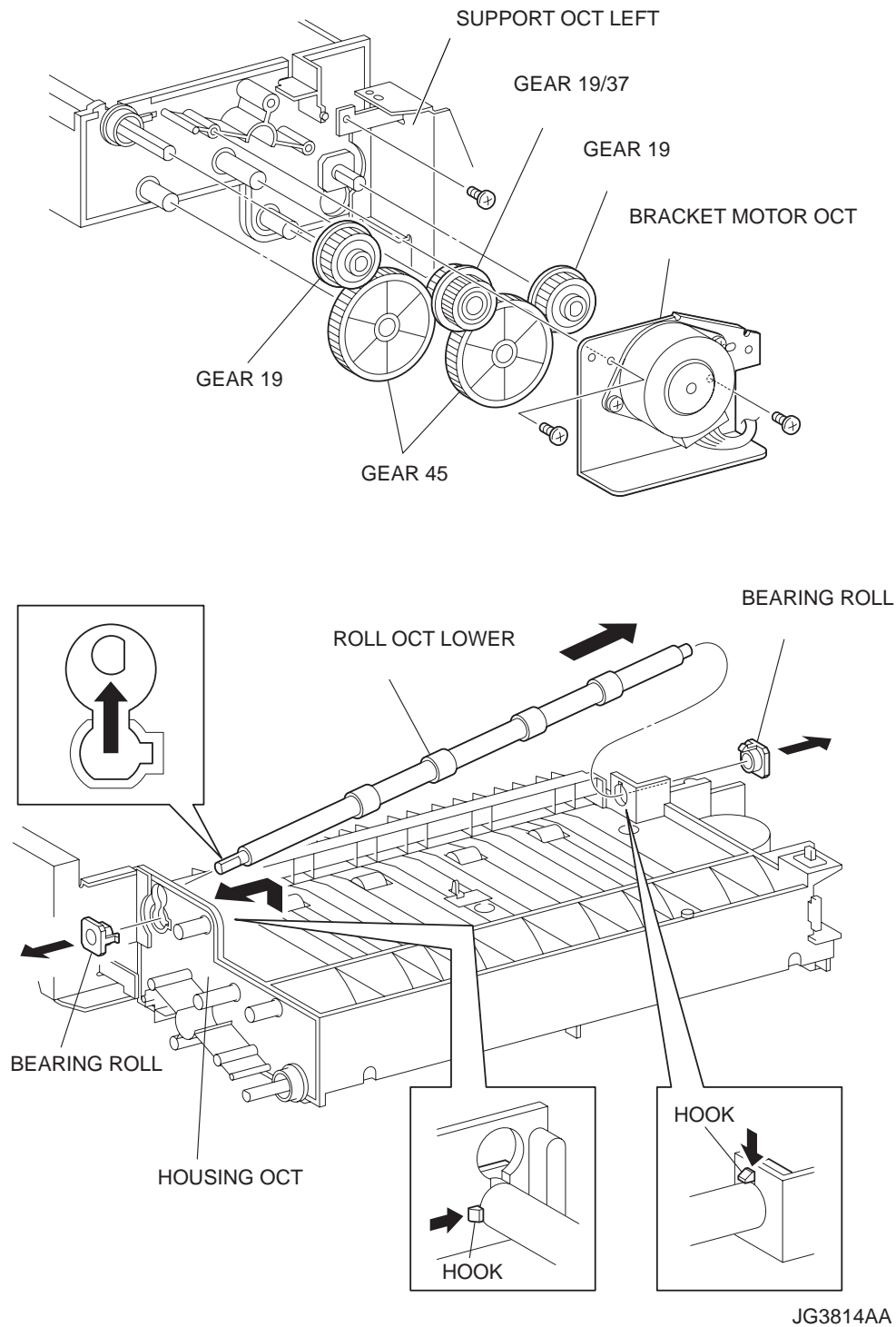
NOTE

Be careful handling the hook of the BEARING ROLL. It is fragile and could break if given excessive force.

- 8) Shift the ROLL OCT LOWER in the direction of the arrow to remove.

NOTE

When removing, do not hold the rubber rollers of the ROLL OCT LOWER.



Replacement

- 1) Shift the ROLL OCT LOWER in the opposite direction of the arrow to install.

NOTE

When installing, do not hold the rubber rollers of the ROLL OCT LOWER.

- 2) Install the BEARING ROLL to the HOUSING OCT at the GEAR 19 side.
- 3) Install the GEAR 19 (PL 11.1), GEAR 45 (PL 11.1) and GEAR 19/37 (PL 11.1) in order.

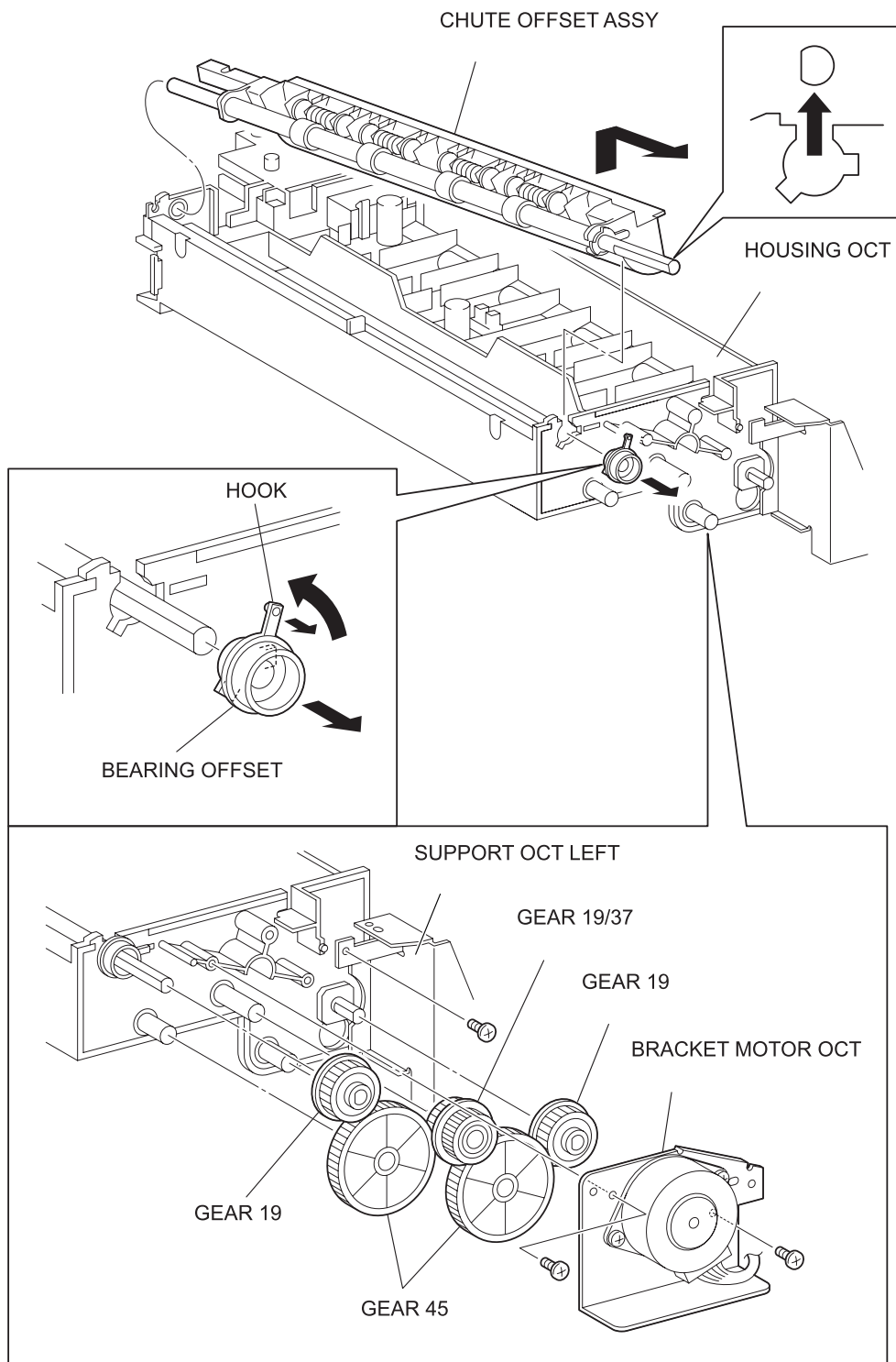
NOTE

When installing the GEAR 19, be careful in the installing direction.

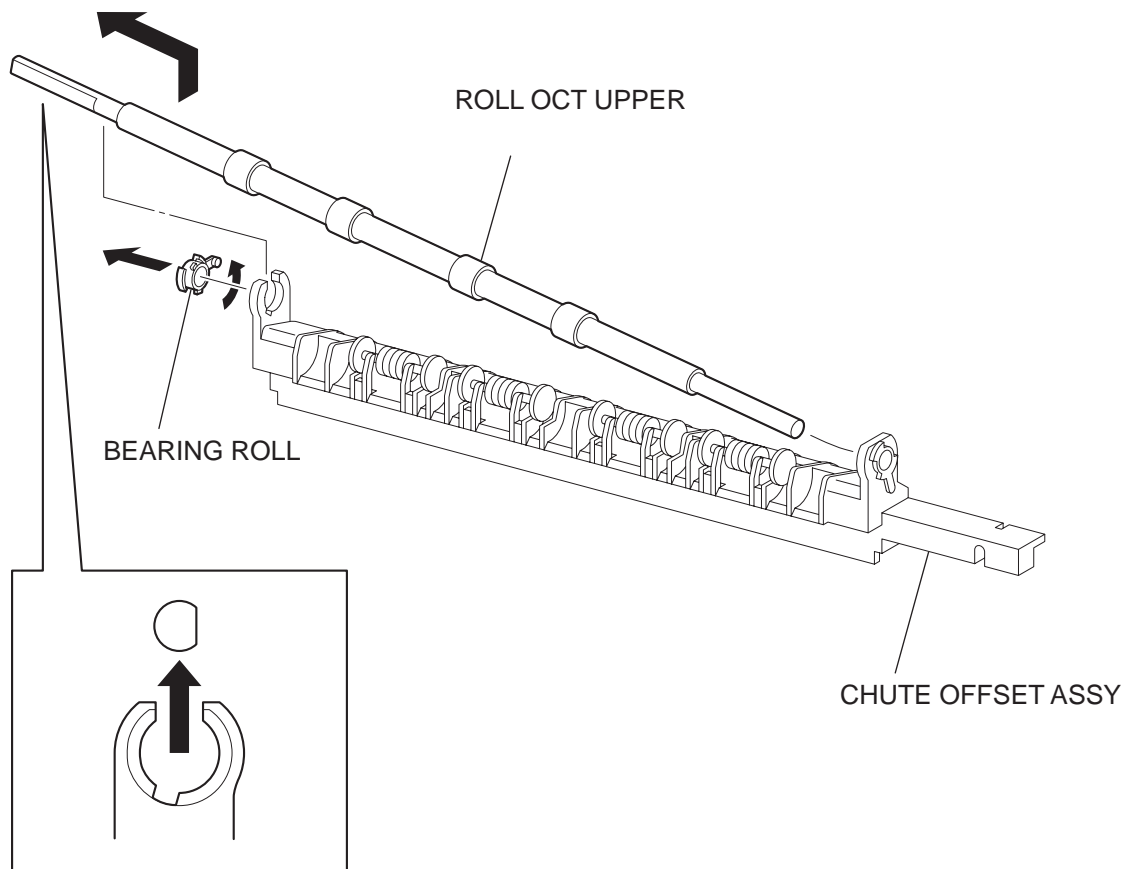
- 4) Install the BRACKET MOTOR OCT (PL 11.1) using the 2 screws (gold tapping, 8mm).
- 5) Install the SUPPORT OCT LEFT using the 2 screws (gold tapping, 8mm, gold 6mm).
- 6) Install the COVER OCT (PL 11.1). (RRP11.4)
- 7) Install the COVER REAR (PL 11.1). (RRP11.2)

RRP11.12 ROLL OCT UPPER (PL11.1)**Removal**

- 1) Remove the COVER REAR (PL 11.1). (RRP11.2)
- 2) Remove the COVER OCT (PL 11.1). (RRP11.4)
- 3) Remove the COVER FRONT (PL 11.1). (RRP11.5)
- 4) Remove the GEAR CAM (PL 11.1).
- 5) Remove the 2 screws (gold tapping, 8mm, gold 6mm) securing the SUPPORT OCT LEFT (PL 11.1).
- 6) Remove the 2 screws (gold tapping, 8mm) securing the BRACKET MOTOR OCT (PL 11.1).
- 7) Disconnect the harness connector of the MOTOR ASSY, and remove the BRACKET MOTOR OCT together with the MOTOR ASSY OCT (PL 11.1).
- 8) Remove the GEAR 45 (PL 11.1), GEAR 19/37 (PL 11.1) and GEAR 19 (PL 11.1).
- 9) Release the hook of the BEARING OFFSET (PL 11.1), and turn it in the direction of the arrow. Remove the BEARING OFFSET from the HOUSING OCT (PL 11.1).
- 10) Release the hook of the BEARING ROLL (PL 11.1) on the other side, and remove it. Remove the CHUTE OFFSET ASSY (PL 11.1).
- 11) Release the hook of the 2 BEARING ROLLS (PL 11.1) on one side, and remove them.
- 12) Remove the ROLL OCT UPPER from the CHUTE OFFSET ASSY.



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Replacement

- 1) Install the ROLL OCT UPPER to the CHUTE OFFSET ASSY (PL 11.1).
- 2) Install the 2 BEARING ROLLs (PL 11.1) to the CHUTE OFFSET ASSY.
- 3) Install the BEARING ROLL (PL 11.1) to the HOUSING OCT (PL 11.1).
- 4) Install the CHUTE OFFSET ASSY to the HOUSING OCT. Install the BEARING OFFSET (PL 11.1), and secure it with the hook.
- 5) Install the GEAR 19 (PL 11.1), GEAR 45 (PL 11.1) and GEAR 19/37 (PL 11.1) in order.

NOTE

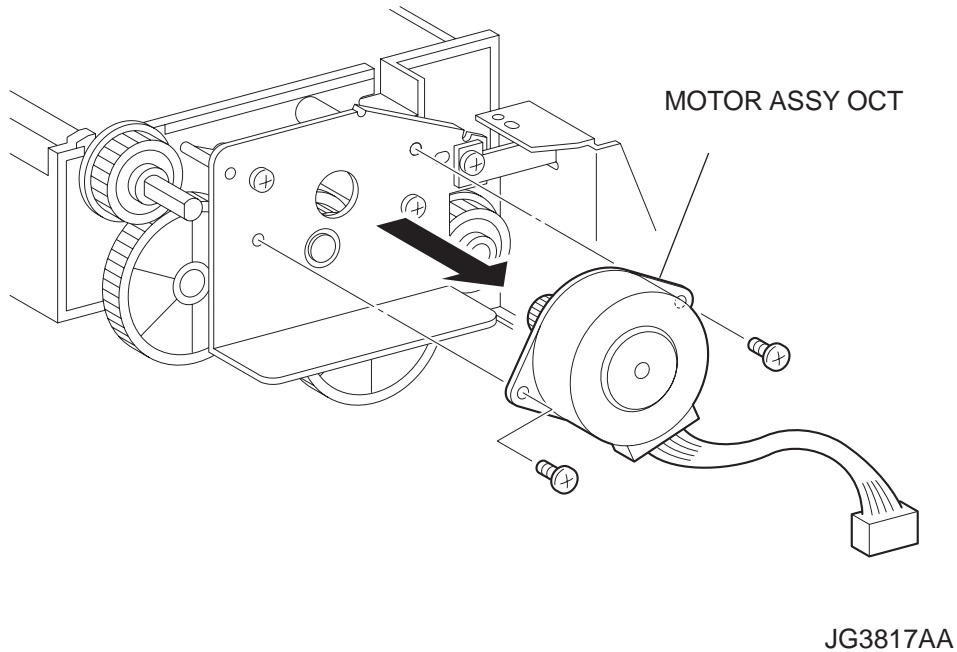
When installing the GEAR 19, be careful in the installing direction.

- 6) Install the BRACKET MOTOR OCT (PL 11.1) using the 2 screws (gold tapping, 8mm).
- 7) Install the SUPPORT OCT LEFT using the 2 screws (gold tapping, 8mm, gold 6mm).
- 8) Install the GEAR CAM (PL 11.1). (Figure 23.5)
- 9) Install the COVER FRONT (PL 11.1). (RRP11.5)
- 10) Install the COVER OCT (PL 11.1). (RRP11.4)
- 11) Install the COVER REAR (PL 11.1). (RRP11.2)

RRP11.13 MOTOR ASSY OCT (PL11.1)

Removal

- 1) Remove the COVER REAR (PL 11.1). (RRP11.2)
- 2) Remove the COVER OCT (PL 11.1). (RRP11.4)
- 3) Disconnect the connector of the MOTOR ASSY OCT from the HARNESS ASSY OCT MOT (PL 11.1).
- 4) Remove the 2 screws (gold, 8mm) securing the MOTOR ASSY OCT, and remove the MOTOR ASSY OCT.



Replacement

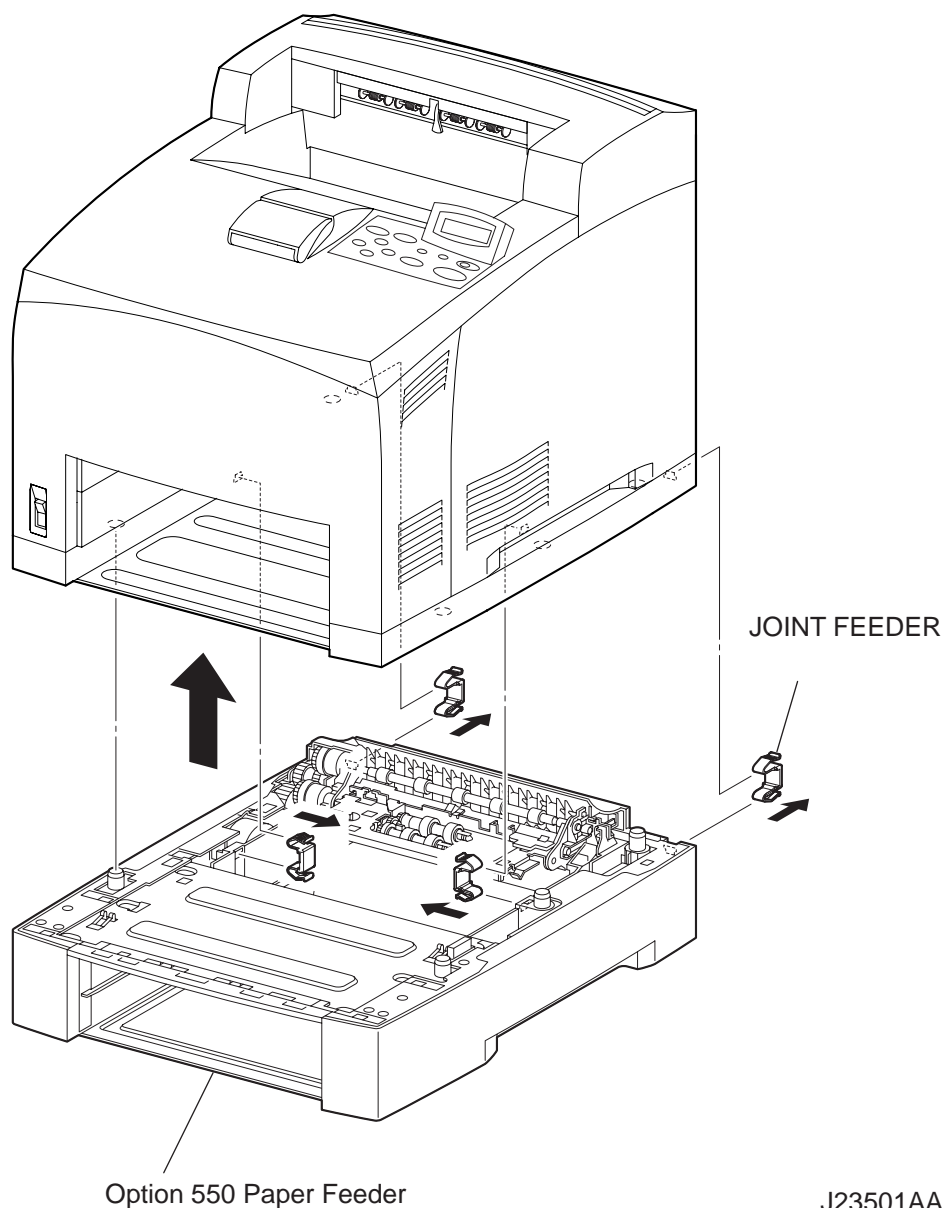
- 1) Secure the MOTOR ASSY OCT using the 2 screws (gold, 8mm).
- 2) Connect the connector of the MOTOR ASSY OCT to the HARNESS ASSY OCT MOT (PL 11.1).
- 3) Install the COVER FRONT (PL 11.1). (RRP11.5)
- 4) Install the COVER OCT (PL 11.1). (RRP11.4)
- 5) Install the COVER REAR (PL 11.1). (RRP11.2)

RRP12.550 Paper Feeder Option

RRP12.1 550 Paper Feeder Option

Removal

- 1) Remove the EP CARTRIDGE.
- 2) Pull out the 250 PAPER CASSETTE or 550 PAPER CASSETTE from the 2nd tray of the printer.
- 3) Remove the 550 PAPER CASSETTE from the Option 550 Paper Feeder.
- 4) Remove 2 JOINT FEEDERS (PL 12.1) at the rear of the printer securing the printer and the Option 550 Paper Feeder.
- 5) Remove 2 JOINT FEEDERS inside the tray insertion space.
- 6) Lift and remove the printer from the Option 550 Paper Feeder, and put it aside.



Replacement

- 1) Install the printer on the Option 550 Paper Feeder.

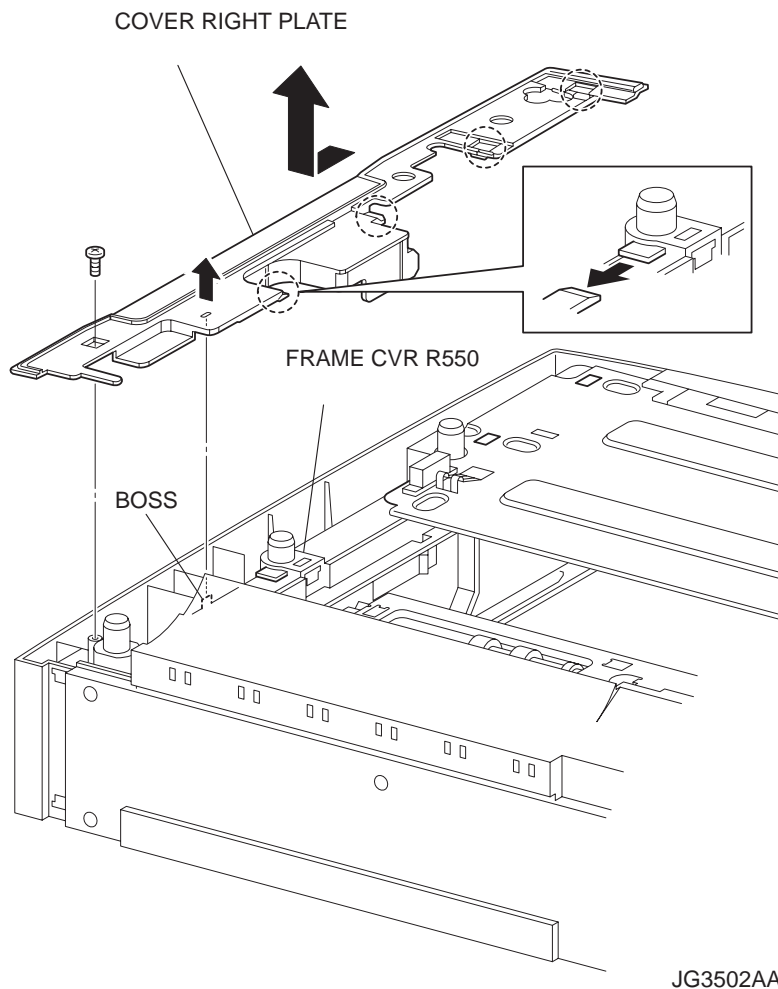
NOTE

When installing, align the holes and the bosses of the printer and Option 550 Paper Feeder, and fix them using 4 JOINT FEEDERs firmly.

- 2) Secure the printer and Option 550 Paper Feeder using 2 JOINT FEEDERs (PL 12.1) inside the tray insertion space.
- 3) INstall 2 JOINT FEEDERs at the rear of the printer.
- 4) Set the 550 PAPER CASSETTE to the Option 550 Paper Feeder.
- 5) Set the 250 PAPER CASSETTE or 550 PAPER CASSETTE to the 2nd tray of the printer.
- 6) Install the EP CARTRIDGE.

RRP12.2 COVER RIGHT PLATE (PL12.1)**Removal**

- 1) Remove the screw (gold tapping, 8mm) securing the COVER RIGHT PLATE to the frame.
- 2) Lift up the COVER RIGHT PLATE just above the boss of the FRAME CVR R550 (PL 12.1) a little to release.
- 3) Shift the COVER RIGHT PLATE in the direction of the arrow to release the 4 hooks of the FRAME CVR R550, and remove the COVER RIGHT PLATE from the Option 550 Paper Feeder.



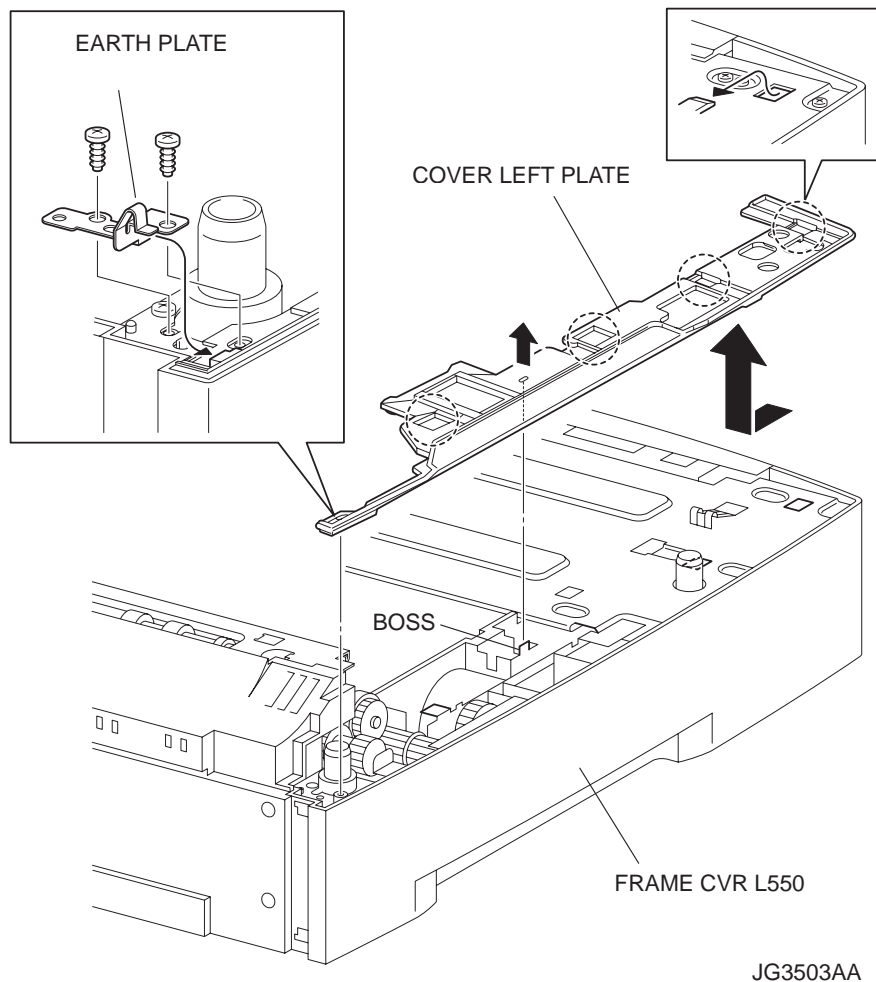
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Replacement

- 1) Shift the COVER RIGHT PLATE in the opposite direction of the arrow to engage the 4 hooks of the FRAME CVR R550 (PL 12.1) with the COVER RIGHT PLATE.
- 2) Put the boss of the FRAME CVR R550 into the hole of the COVER RIGHT PLATE.
- 3) Secure the COVER RIGHT PLATE to the frame using the screw (gold tapping, 8mm).

RRP12.3 COVER LEFT PLATE (PL12.1)**Removal**

- 1) Remove the 2 screws (gold tapping, 8mm) securing the EARTH PLATE (PL 12.1) to the frame.
- 2) Remove the EARTH PLATE.
- 3) Lift up the COVER LEFT PLATE just above the boss of the FRAME CVR L550 (PL 12.1) a little to release them.
- 4) Shift the COVER LEFT PLATE in the direction of the arrow to release the 4 hooks of the FRAME CVR L550, and remove the COVER LEFT PLATE from the Option 550 Paper Feeder.

**Replacement**

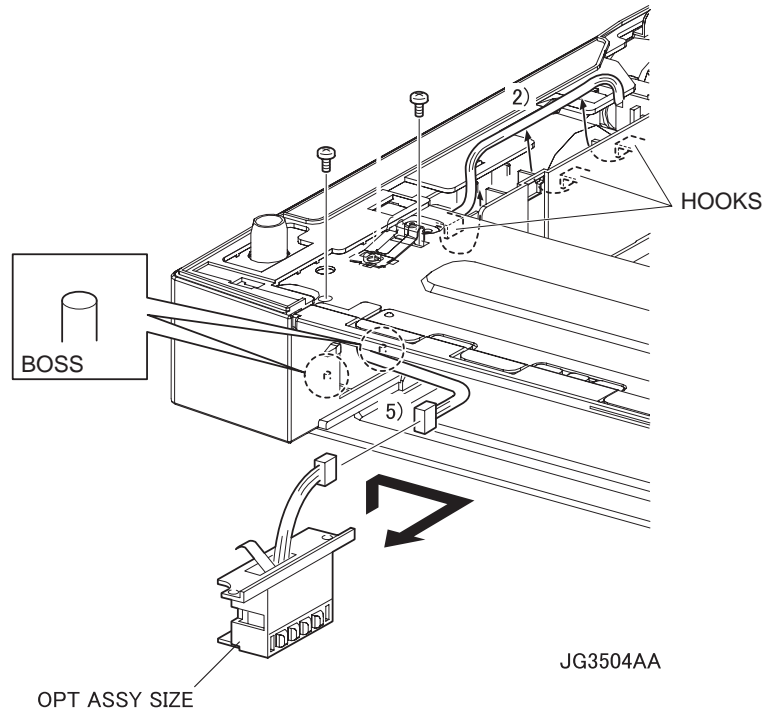
- 1) Shift the COVER LEFT PLATE in the opposite direction of the arrow to engage the 4 hooks of the FRAME CVR L550 (PL 12.1) with the COVER LEFT PLATE.
- 2) Put the boss of the FRAME CVR L550 into the hole of the COVER LEFT PLATE.
- 3) Secure the EARTH PLATE (PL 12.1) to the frame using the 2 screws (gold tapping, 8mm).

NOTE

When installing the EARTH PLATE, be sure to install the tip of the EARTH PLATE under the COVER LEFT PLATE.

RRP12.4 OPT ASSY SIZE (PL12.1)**Removal**

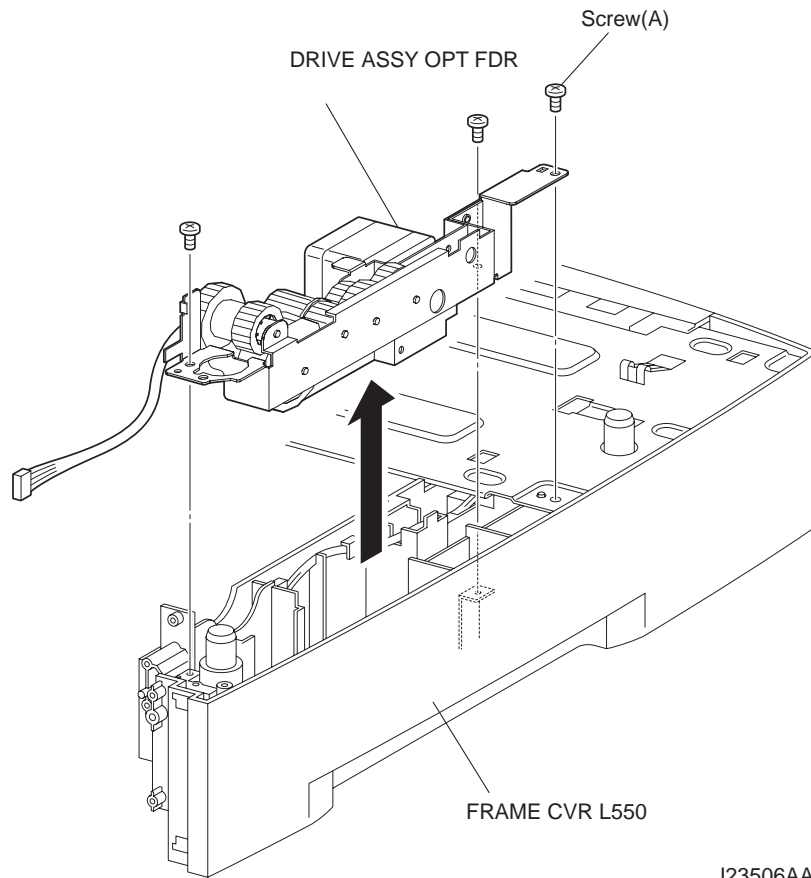
- 1) Release the HARNESS ASSY SIZE FDR1 (PL 12.1) from the hooks of the FRAME CVR L550 (PL 12.1).
- 2) Remove the 2 screws (gold tapping, 8mm) securing the OPT ASSY SIZE to the FRAME CVR L550.
- 3) Shift the OPT ASSY SIZE in the direction of the arrow to release the bosses, and remove it from the FRAME CVR L550.
- 4) Disconnect the connector (P/J802) of the the HARNESS ASSY SIZE FDR1 from the connector of the OPT ASSY SIZE.

**Replacement**

- 1) Shift the OPT ASSY SIZE in the opposite direction of the arrow, and install it to the FRAME CVR L550 (PL 12.1) using the 2 screws (gold tapping, 8mm).
- 2) Connect the connector (P/J802) of the HARNESS ASSY SIZE FDR1 (PL 12.1) to the connector of the OPT ASSY SIZE.
- 3) Secure the HARNESS ASSY SIZE FDR1 to the FRAME CVR L550 using hooks.

RRP12.5 DRIVE ASSY OPT FDR (PL12.1)**Removal**

- 1) Remove the 550 FEEDER OPTION (PL 12.2). (RRP12.1)
- 2) Remove the COVER LEFT PLATE (PL 12.1.3). (RRP12.3)
- 3) Disconnect the connector (P/J820) of the MOTOR FEEDER (PL 12.1.17) attached to the DRIVE ASSY OPT FDR from the HARNESS ASSY FDR MOT (PL 12.1.37).
- 4) Remove the 3 screws (gold tapping, 8mm x 2, silver, 6mm x 1) securing the DRIVE ASSY OPT FDR to the FRAME CVR L550 (PL 12.1).
- 5) Remove the DRIVE ASSY OPT FDR.



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Replacement

- 1) Install the DRIVE ASSY OPT FDR to the FRAME CVR L550 (PL 12.1) using the 3 screws (gold tapping, 8mm x 2, silver, 8mm x 1).

NOTE

Be sure to tighten the screw (silver, 6mm) shown as Screw (A) in the figure. When tightening the screws, be careful not to pinch the harness between the board and frame.

- 2) Connect the connector (P/J820) of the MOTOR FEEDER (PL 12.1.17) attached to the DRIVE ASSY OPT FDR to the HARNESS ASSY FDR MOT (PL 12.1.37).
- 3) Install the COVER LEFT PLATE (PL 12.1.3). (RRP12.3)

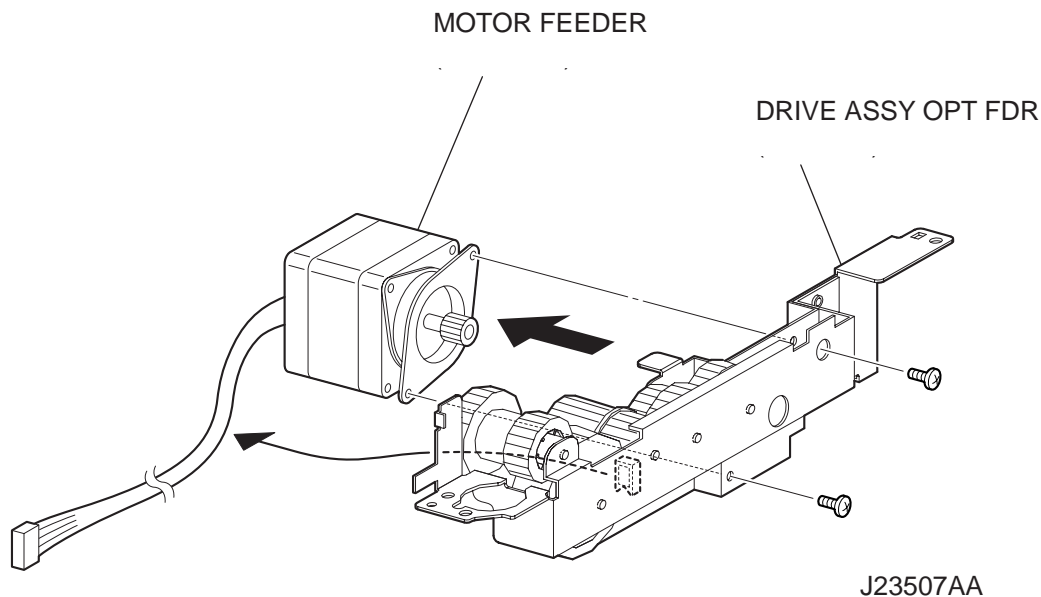
NOTE

When installing the EARTH PLATE, be sure to install the tip of the EARTH PLATE under the COVER LEFT PLATE.

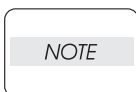
- 4) Install the 550 FEEDER OPTION (PL 12.2). (RRP12.1)

RRP12.6 MOTOR FEEDER (PL12.1)**Removal**

- 1) Remove the 550 FEEDER OPTION (PL 12.2). (RRP12.1)
- 2) Remove the COVER LEFT PLATE (PL 12.1.3). (RRP12.3)
- 3) Remove the DRIVE ASSY OPT FDR (PL 12.1.8). (RRP12.5)
- 4) Remove the 2 screws (gold, 6mm) securing the MOTOR FEEDER to the DRIVE ASSY OPT FDR.
- 5) Remove the MOTOR FEEDER.

**Replacement**

- 1) Install the MOTOR FEEDER to the DRIVE ASSY OPT FDR (PL 12.1.8) using the 2 screws (gold, 6mm).
- 2) Install the DRIVE ASSY OPT FDR. (RRP12.5)
- 3) Install the COVER LEFT PLATE (PL 12.1.3). (RRP12.3)

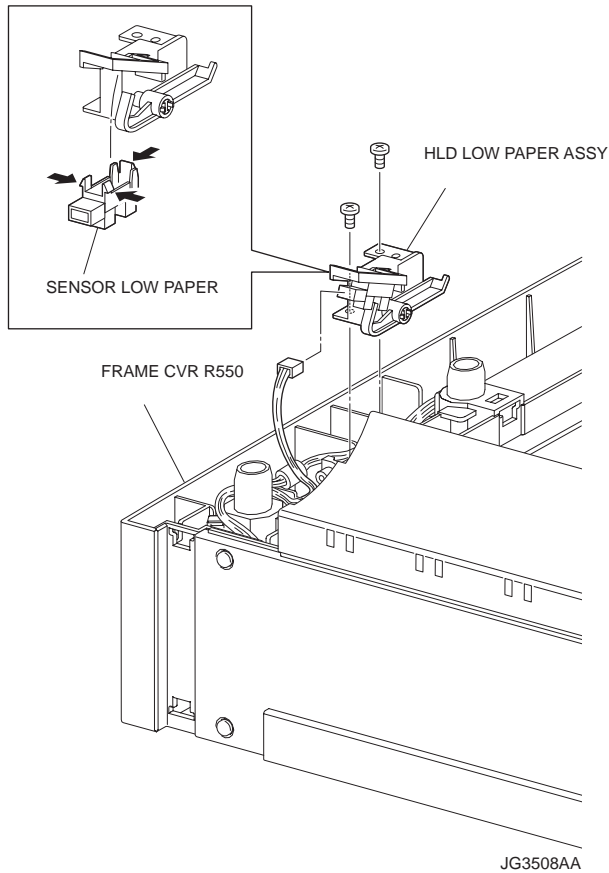


When installing the EARTH PLATE, be sure to install the tip of the EARTH PLATE under the COVER LEFT PLATE.

- 4) Install the 550 FEEDER OPTION (PL 12.2). (RRP12.1)

RRP12.7 SENSOR LOW PAPER (PL12.1)**Removal**

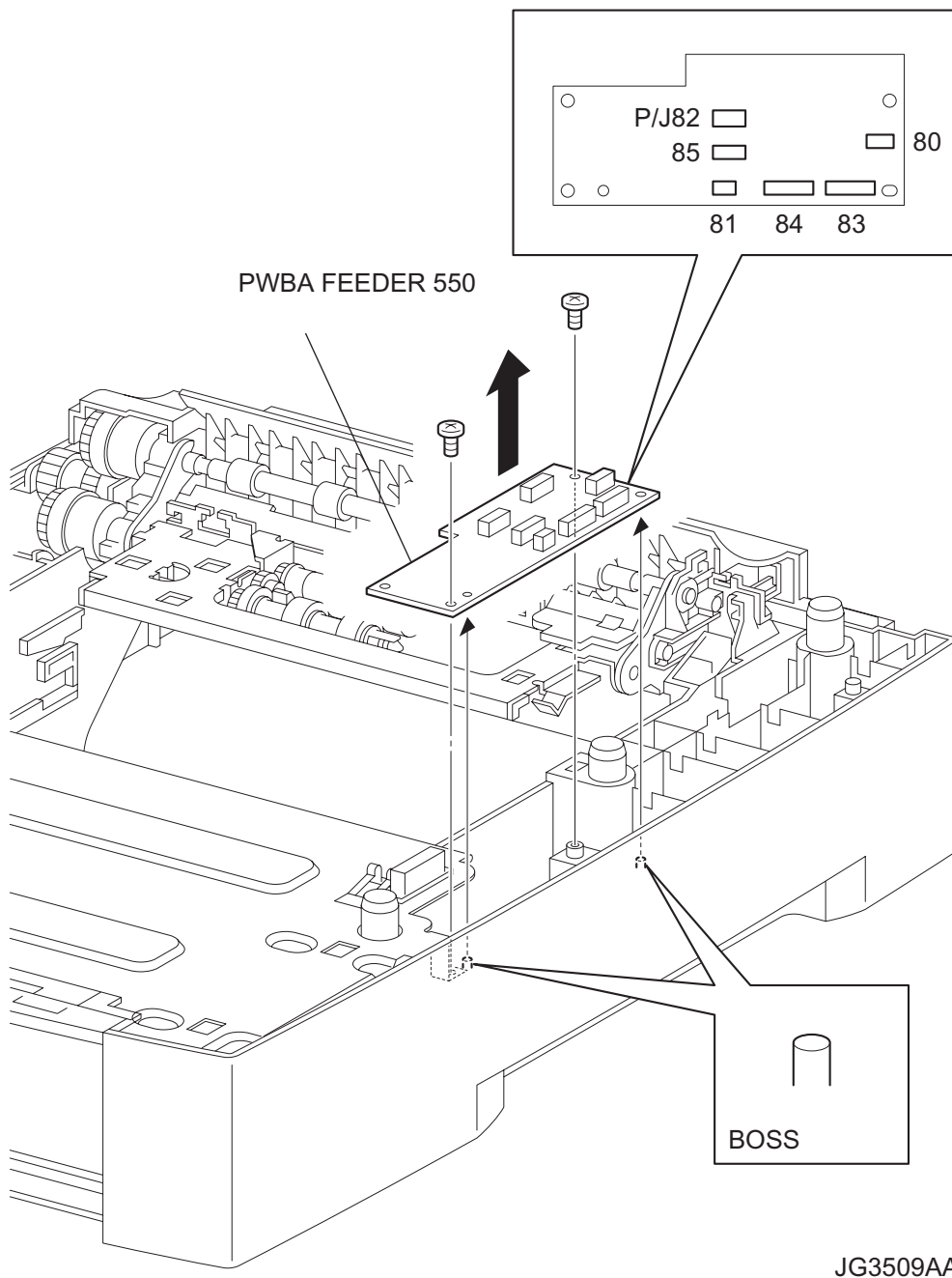
- 1) Remove the COVER RIGHT PLATE (PL 12.1.1). (RRP12.2)
- 2) Remove the 2 screws securing the HLD LOW PAPER ASSY (PL 12.1.29) to the FRAME CVR R550 (PL 12.1).
- 3) Disconnect the connector (P/J810) of the HARNESS LOW PAPER (PL 12.1.33) from the SENSOR LOW PAPER of the HLD LOW PAPER ASSY.
- 4) Remove the HLD LOW PAPER ASSY.
- 5) Release the hooks of the SENSOR LOW PAPER, and remove it from the HLD LOW PAPER ASSY.

**Replacement**

- 1) Install the SENSOR LOW PAPER to the HLD LOW PAPER ASSY (PL 12.1.29).
- 2) Connect the connector (P/J810) of the HARNESS LOW PAPER (PL 12.1.33) to the SENSOR LOW PAPER of the HLD LOW PAPER ASSY.
- 3) Install the HLD LOW PAPER ASSY to the FRAME CVR R550 (PL 12.1) using the 2 screws.
- 4) Install the COVER RIGHT PLATE (PL 12.1.1). (RRP12.2)

RRP12.8 PWBA FEEDER 550 (PL12.1)**Removal**

- 1) Remove the COVER RIGHT PLATE (PL 12.1.1). (RRP12.2)
- 2) Disconnect the harness connectors from the connectors (P/J80, P/J81, P/J82, P/J83, P/J84 and P/J85) on the PWBA FEEDER 550.
- 3) Remove the 2 screws (gold tapping, 8mm) securing the PWBA FEEDER 550 to the frame.
- 4) Remove the PWBA FEEDER 550.

**Replacement**

- 1) Install the PWBA FEEDER 550 to the frame using the 2 screws (gold tapping, 8mm).

NOTE

One of the screws that secure the PWBA FEEDER 550 is tightened together with the FRAME TOP ASSY.

NOTE

When installing, align the hole of the PWBA FEEDER 550 with the boss of the FRAME CVR R550.

- 2) Connect the connectors (P/J80, P/J81, P/J82, P/J83, P/J84 and P/J85) on the PWBA FEEDER 550 to the harness connectors.
- 3) Install the COVER RIGHT PLATE (PL 12.1.1). (RRP12.2)

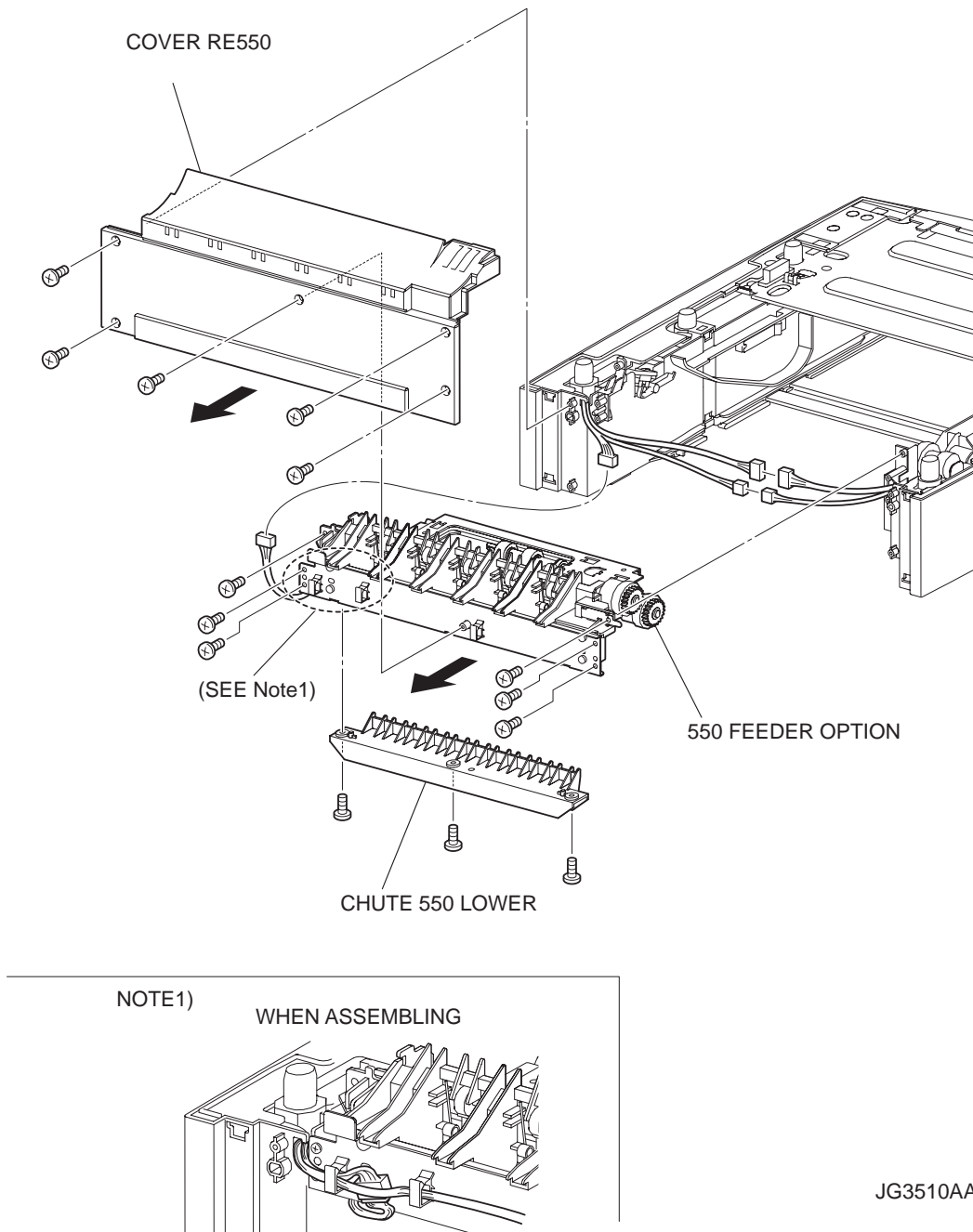
RRP12.9 550 FEEDER OPTION (PL12.2)**Removal**

- 1) Remove the 5 screws (gold tapping, 8mm) securing the COVER RE550 (PL 12.1.25) to the frame.
- 2) Remove the COVER RE550.
- 3) Disconnect the connector (P/J855) of the HARNESS ASSY CLSNR1 (PL 12.1.31) from the HARNESS ASSY CLSNR2 (PL 12.1.36).
- 4) Disconnect the connector (P/J820) of the MOTOR FEEDER (PL 12.1.17) from the HARNESS ASSY FDR MOT (PL 12.1.37).
- 5) Disconnect the connector (P/J801) of the HARNESS ASSY SIZE FDR1 (PL 12.1) from the HARNESS ASSY SIZE FDR2 (PL 12.1.35).
- 6) Release the clamp of the HARNESS ASSY FDR MOT and HARNESS ASSY SIZE FDR2 from the clamps.
- 7) Remove the 6 screws (gold tapping, 8mm) securing the 550 FEEDER OPTION to the frame.
- 8) Remove the 550 FEEDER OPTION from the frame.

NOTE

The following step is performed, if necessary.

- 9) Remove the 3 screws (silver, 6mm) securing the CHUTE 550 LOWER (PL 12.2.34) to the 550 FEEDER OPTION, and remove the CHUTE 550 LOWER from the 550 FEEDER OPTION.



Replacement

- 1) Install the CHUTE 550 LOWER (PL 12.2.34) to the 550 FEEDER OPTION using the 3 screws (silver, 6mm).
- 2) Install the 550 FEEDER OPTION to the frame using the 6 screws (gold tapping, 8mm).
- 3) Secure the HARNESS ASSY FDR MOT (PL 12.1.37) and HARNESS ASSY SIZE FDR2 (PL 12.1.35) using clamps.
- 4) Connect the connector (P/J801) of the HARNESS ASSY SIZE FDR1 (PL 12.1) to the HARNESS ASSY SIZE FDR2.
- 5) Connect the connector (P/J820) of the MOTOR FEEDER (PL 12.1.17) to the HARNESS ASSY FDR MOT.

- 6) Connect the connector (P/J855) of the HARNESS ASSY CLSNR1 (PL 12.2.31) to the HARNESS ASSY CLSNR2 (PL 12.1.36).

NOTE

After connecting the connector, put the connector under the harness.

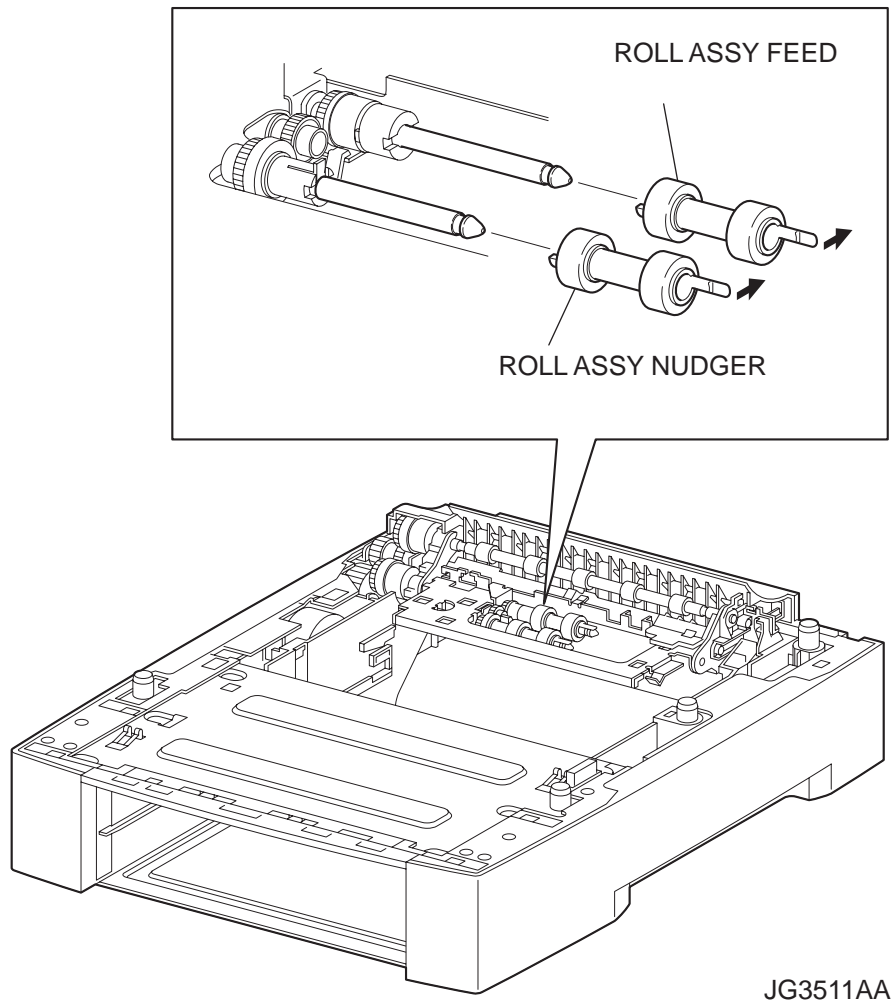
- 7) Install the COVER RE550 (PL 12.1.25) to the frame using the 5 screws (gold tapping, 8mm).

RRP12.10 ROLL ASSY NUDGER (PL12.2), ROLL ASSY FEED (PL12.2)**Removal**

- 1) Release the hook securing the ROLL ASSY NUDGER, and pull it out from the SHAFT NUDGER (PL 12.2.9).
- 2) Release the hook securing the ROLL ASSY FEED, and pull it out from the SHAFT FEED (PL 12.2.16).

NOTE

When removing, do not hold the rubber rollers of the ROLL ASSY NUDGER and ROLL ASSY FEED.



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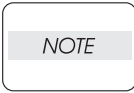
Replacement

The ROLL ASSY FEED and ROLL ASSY NUDGER are the same parts, although the names differ.

- 1) Install the ROLL ASSY FEED to the SHFT FEED (PL 12.2.16), and secure the ROLL ASSY FEED with the hook.

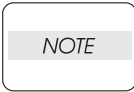
NOTE

Be sure to install the hook of the ROLL ASSY FEED into the groove of the SHAFT FEED.

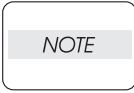


When installing, do not hold the rubber rollers of the ROLL ASSY FEED.

- 2) Install the ROLL ASSY NUDGER to the SHFT NUDGER (PL 12.2.9), and secure the ROLL ASSY NUDGER with the hook.



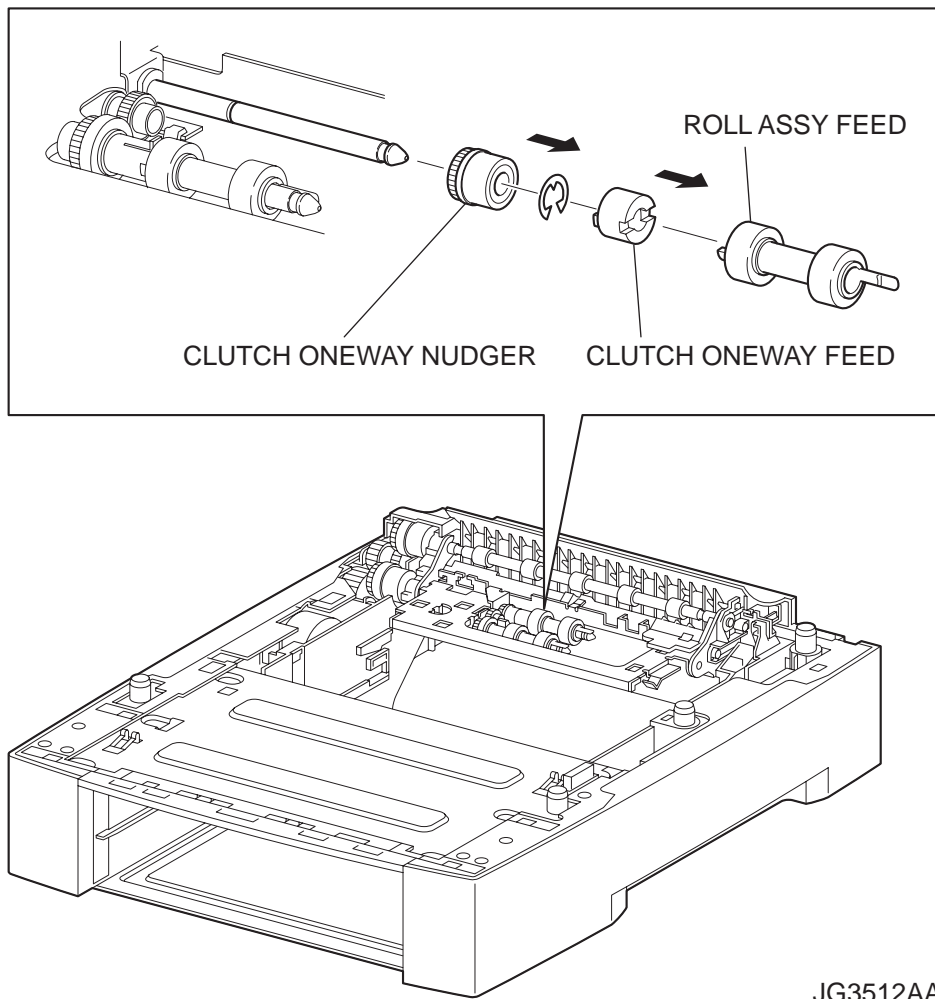
Be sure to install the hook of the ROLL ASSY NUDGER into the groove of the SHAFT NUDGER.



When installing, do not hold the rubber rollers of the ROLL ASSY NUDGER.

RRP12.11 CLUTCH ONEWAY NUDGER (PL12.2)**Removal**

- 1) Remove the ROLL ASSY FEED (PL 12.2.12). (RRP12.10)
- 2) Pull out the CLUTCH ONEWAY FEED (PL 12.2.13) from the SHAFT FEED (PL 12.2.16).
- 3) Remove the E-ring securing the CLUTCH ONEWAY NUDGER to the SHAFT FEED.
- 4) Pull out the CLUTCH ONEWAY NUDGER from the SHAFT FEED.



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Replacement

- 1) Install the CLUTCH ONEWAY NUDGER to the SHAFT FEED (PL 12.2.16).
- 2) Clip the E-ring to the SHAFT FEED to secure the CLUTCH ONEWAY NUDGER.
- 3) Install the CLUTCH ONEWAY FEED (PL 12.2.13) to the SHAFT FEED.
- 4) Install the ROLL ASSY FEED (PL 12.2.12). (RRP12.10)

NOTE

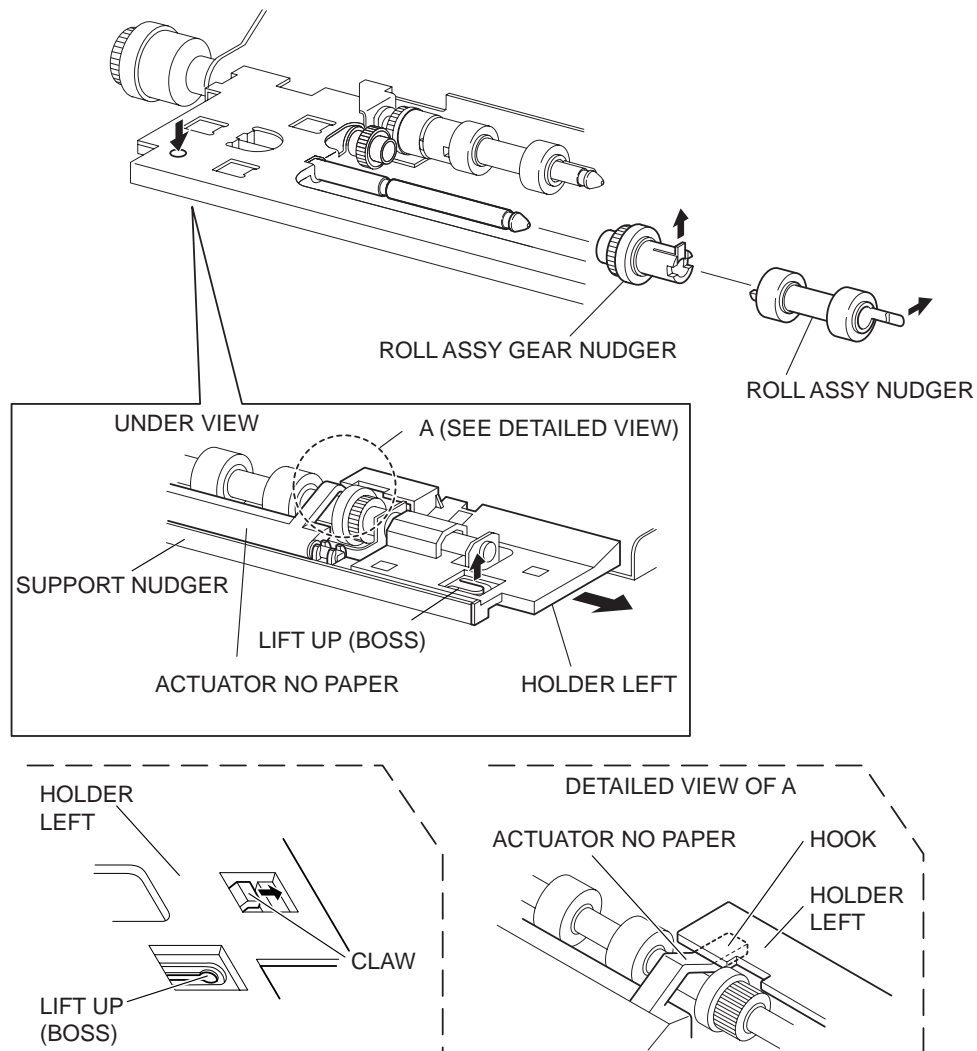
Be sure to install the hook of the ROLL ASSY FEED into the groove of the SHAFT FEED.

RRP12.12 GEAR NUDGER (PL12.2)**Removal**

- 1) While lifting up the boss of the HOLDER LEFT (PL 12.2.5) at the back of the 550 FEEDER OPTION, shift the HOLDER LEFT in the direction of the arrow to remove the 3 hooks.
- 2) Remove the HOLDER LEFT from the SUPPORT NUDGER (PL 12.2.4). At the same time, the ACTUATOR NO PAPER (PL 12.2.6) is removed.
- 3) Release the hook of the ROLL ASSY NUDGER (PL 12.2.11), and pull it out from the SHAFT NUDGER (PL 12.2.9).
- 4) Release the hook of the GEAR NUDGER, and pull it out from the SHAFT NUDGER.

NOTE

When removing, do not hold the rubber rollers of the ROLL ASSY NUDGER and GEAR NUDGER.



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Replacement

- 1) Install the GEAR NUDGER to the SHFT NUDGER (PL 12.2.9), and secure it with the hook.

NOTE

Be sure to install the hook of the GEAR NUDGER into the groove of the SHAFT NUDGER.

NOTE

When installing, do not hold the rubber rollers of the GEAR NUDGER.

- 2) Install the ROLL ASSY NUDGER (PL 12.2.11) to the SHFT NUDGER, and secure it with the hook.

NOTE

Be sure to install the hook of the ROLL ASSY NUDGER into the groove of the SHAFT NUDGER.

NOTE

When installing, do not hold the rubber rollers of the ROLL ASSY NUDGER.

- 3) Install the ACTUATOR NO PAPER (PL 12.2.6) and HOLDER LEFT (PL 12.2.5) to the SUPPORT NUDGER (PL 12.2.4).

NOTE

Be sure to install the shafts on both ends of the ACTUATOR NO PAPER into the HOLDER LEFT and SUPPORT NUDGER.

NOTE

Assemble the hook of the ACTUATOR NO PAPER with the HOLDER LEFT as shown in the figure.

- 4) Move the HOLDER LEFT in the opposite direction of the arrow, and secure it to the 550 FEEDER OPTION with the 3 hooks.

NOTE

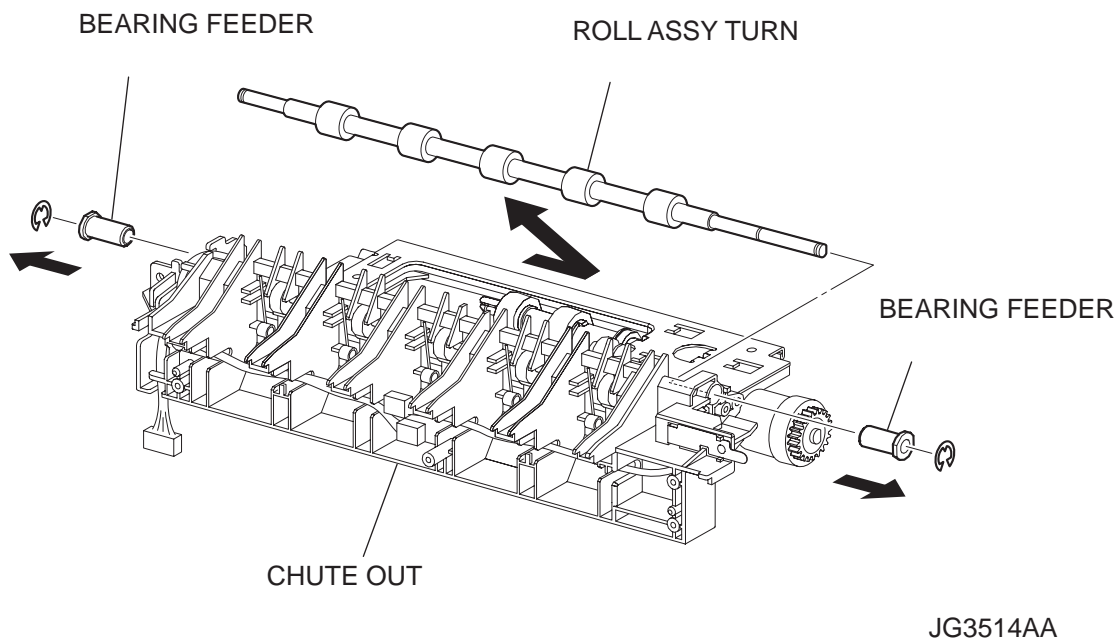
After installing, move the ACTUATOR NO PAPER with a finger, and make sure that the ACTUATOR NO PAPER operates smoothly.

RRP12.13 ROLL ASSY TURN (PL12.2)**Removal**

- 1) Remove the 550 FEEDER OPTION (PL 12.2). (RRP12.1)
- 2) Remove the CLUTCH PR-REGI (PL 12.2.22). (RRP12.15)
- 3) Remove 2 E-rings on both ends of the ROLL ASSY TURN securing the BEARING FEEDER (PL 12.2.23).
- 4) Remove the BEARING FEEDERS from the CHUTE OUT (PL 12.2.25).
- 5) Shift the ROLL ASSY TURN in the direction of the arrow, and remove it from the CHUTE OUT (PL 12.2.18)

NOTE

When removing, do not hold the rubber rollers of the ROLL ASSY TURN.

**Replacement**

- 1) Move the ROLL ASSY TURN in the opposite direction of the arrow, and install it to the CHUTE OUT (PL 12.2.25)

NOTE

When installing, do not hold the rubber rollers of the ROLL ASSY TURN.

- 2) Install the BEARING FEEDERS (PL 12.2.23) to the CHUTE OUT.
- 3) Clip 2 E-rings on both ends of the ROLL ASSY TURN to secure the BEARING FEEDERS.
- 4) Install the CLUTCH PR-REGI (PL 12.2.22). (RRP12.15)

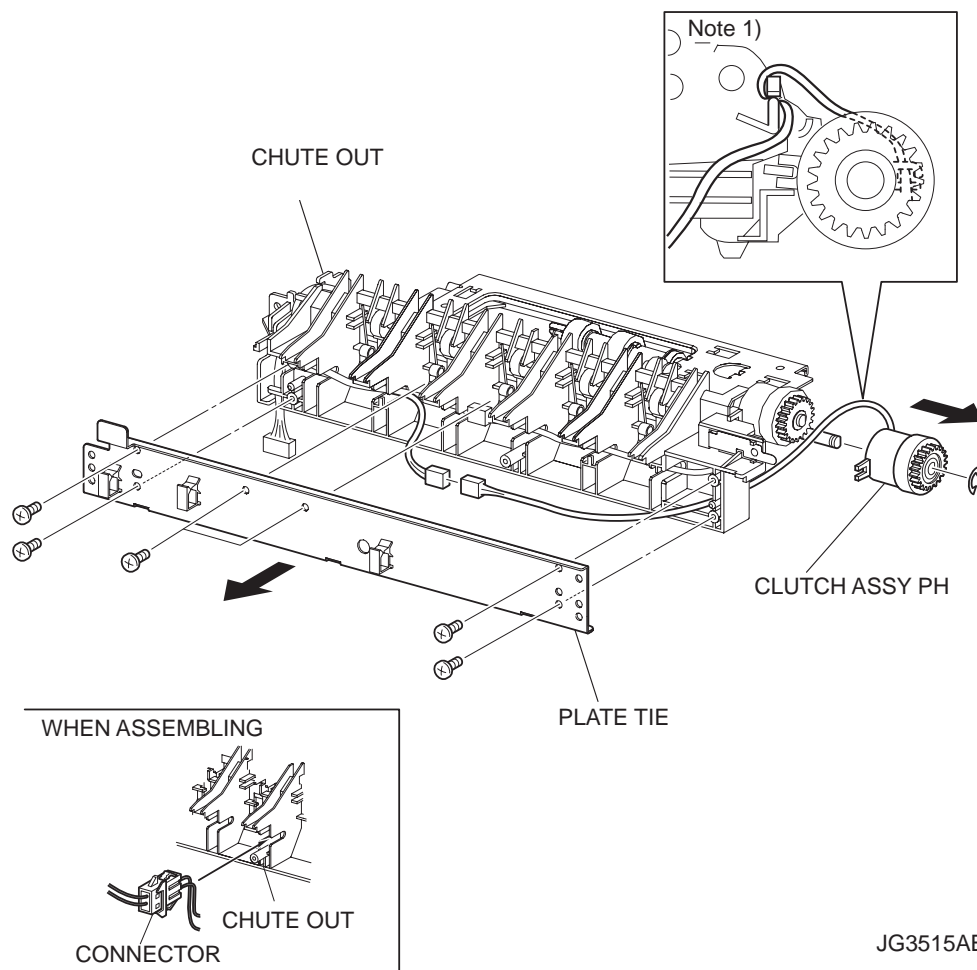
NOTE

When installing, make sure that the notch of the CLUTCH PR-REGI is combined with the boss of the CHUTE OUT.

- 5) Install the 550 FEEDER OPTION (PL 12.2 .1). (RRP12.1)

RRP12.14 CLUTCH ASSY PH (PL12.2)**Removal**

- 1) Remove the 550 FEEDER OPTION (PL 12.2). (RRP12.1)
- 2) Remove the 6 screws (gold taping, 8mm) securing the PLATE TIE (PL 12.2.29).
- 3) Remove the PLATE TIE from the CHUTE OUT (PL 12.2.25).
- 4) Disconnect the connector (P/J853) of the CLUTCH ASSY PH from the HARNESS ASSY CLSNR1 (PL 12.2.31).
- 5) Remove the E-ring securing the CLUTCH ASSY PH, and remove the CLUTCH ASSY PH from the SHAFT FEED (PL 12.2.16).

**Replacement**

- 1) Install the CLUTCH ASSY PH to the SHAFT FEED (PL 12.2.16), and secure it with the E-ring.

NOTE

When installing, make sure that the notch of the CLUTCH PH is combined with the boss of the CHUTE OUT.

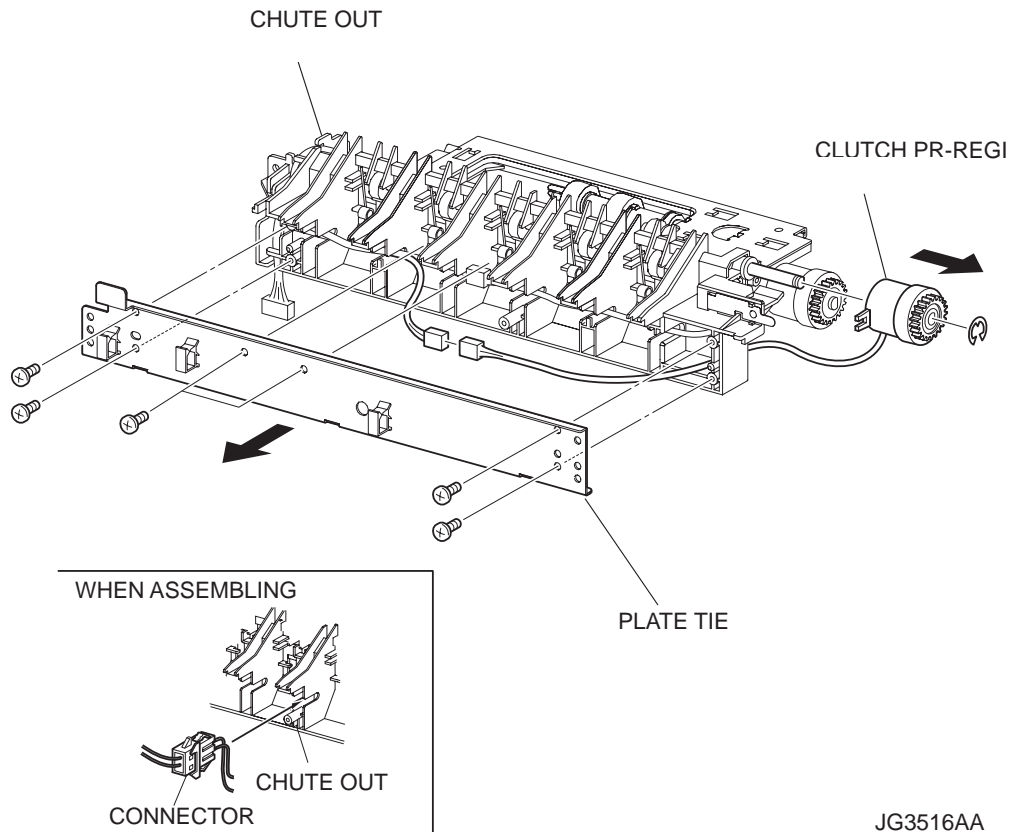
NOTE

Be careful of the arranging of the harness of the CLUTCH ASSY PH.

- 2) Connect the connector (P/J853) of the CLUTCH ASSY PH to the HARNESS ASSY CLSNR1 (PL 12.2.31). After connecting the connector, put the connector into the space between two ribs of the CHUTE OUT (PL 12.2.25).
- 3) Install the 550 FEEDER OPTION (PL 12.2). (RRP12.1)

RRP12.15 CLUTCH PR-REGI (PL12.2)**Removal**

- 1) Remove the 550 FEEDER OPTION (PL 12.2). (RRP12.1)
- 2) Remove the 6 screws (gold tapping, 8mm) securing the PLATE TIE (PL 12.2.29).
- 3) Remove the PLATE TIE from the CHUTE OUT (PL 12.2.25).
- 4) Disconnect the connector (P/J854) of the CLUTCH PR-REGI from the HARNESS ASSY CLSNR1 (PL 12.2.31).
- 5) Remove the E-ring securing the CLUTCH PR-REGI, and remove the CLUTCH PR-REGI from the ROLL ASSY TURN (PL 12.2.14).

**Replacement**

- 1) Install the CLUTCH PR-REGI to the ROLL ASSY TURN (PL 12.2.14), and secure it with the E-ring.

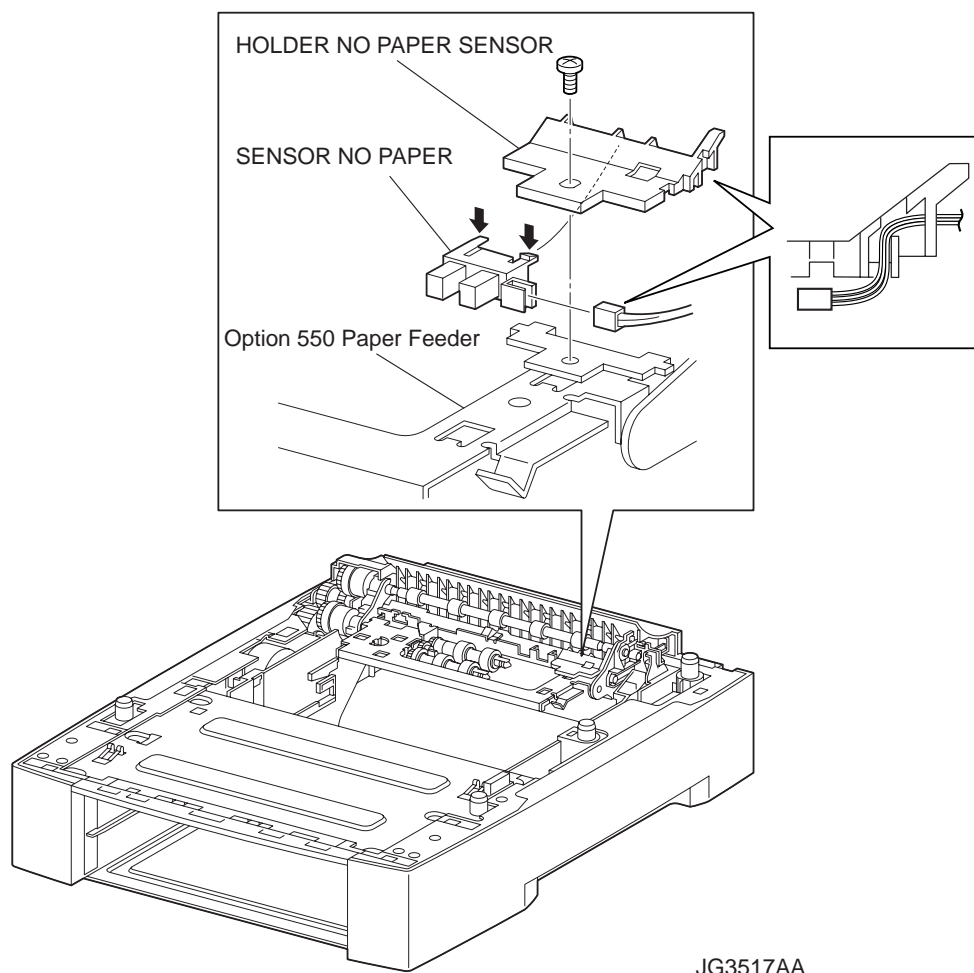
NOTE

When installing, make sure that the notch of the CLUTCH PR-REGI is combined with the boss of the CHUTE OUT.

- 2) Connect the connector (P/J854) of the CLUTCH PR-REGI to the HARNESS ASSY CLSNR1 (PL 12.2.31). After connecting the connector, put the connector into the space between two ribs of the CHUTE OUT (PL 12.2.25).
- 3) Install the PLATE TIE (PL 12.2.29) to the CHUTE OUT using the 6 screws (gold tapping, 8mm).
- 4) Install the 550 FEEDER OPTION (PL 12.2). (RRP12.1)

RRP12.16 SENSOR NO PAPER (PL12.2)**Removal**

- 1) Remove the screw securing the HOLDER NO PAPER SENSOR (PL 12.2.32).
- 2) Remove the HOLDER NO PAPER SENSOR from the Option 550 Paper Feeder.
- 3) Release the 2 hooks of the SENSOR NO PAPER, and remove the SENSOR NO PAPER from the HOLDER NO PAPER SENSOR.
- 4) Disconnect the connector of the HARNESS ASSY CLSNR1 (PL 12.2.31) from the connector (P/ J852) of the SENSOR NO PAPER.

**Replacement**

- 1) Connect the connector (P/J852) of the SENSOR NO PAPER to the connector of the HARNESS ASSY CLSNR1 (PL 12.2.31).
- 2) Install the SENSOR NO PAPER to the HOLDER NO PAPER SENSOR (PL 12.2.32).
- 3) Install the HOLDER NO PAPER SENSOR to the Option 550 Paper Feeder using the screw.

NOTE

After installation, make sure that the HARNESS ASSY CLSNR1 have not pinched between the HOLDER NO PAPER SENSOR and frame.

RRP12.17 ROLL ASSY RETARD (PL12.2)

Removal

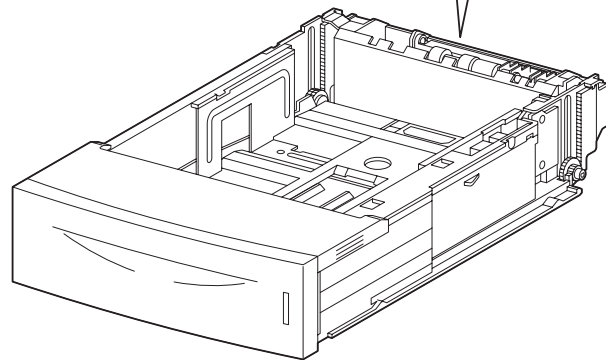
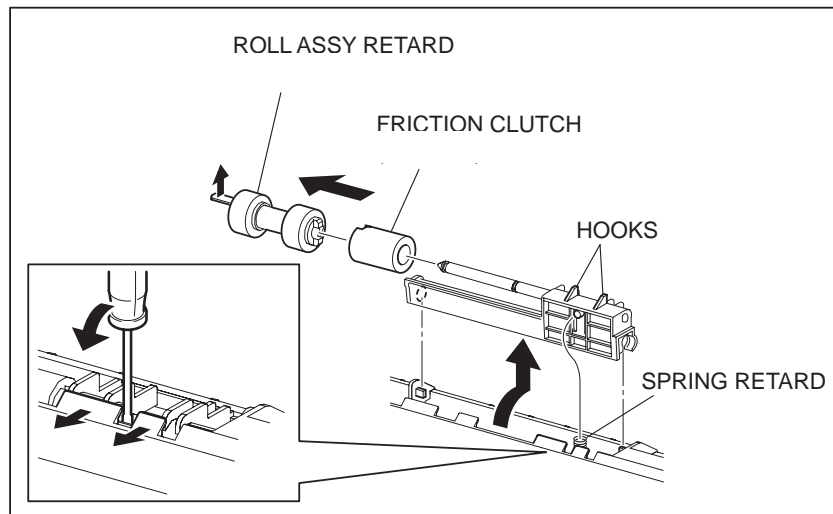
- 1) Pull out the 550 PAPER CASSETTE (PL 12.3) from the Option 550 Paper Feeder.
- 2) Release the hooks securing the HOLDER RETARD (PL 12.3.5) to the 550 PAPER CASSETTE using a screwdriver or the like.
- 3) Lift the HOLDER RETARD up in the direction of the arrow, and remove it.
- 4) Release the hook securing the ROLL ASSY RETARD, and pull it out from the SHAFT RETARD (PL 12.3.4).

NOTE

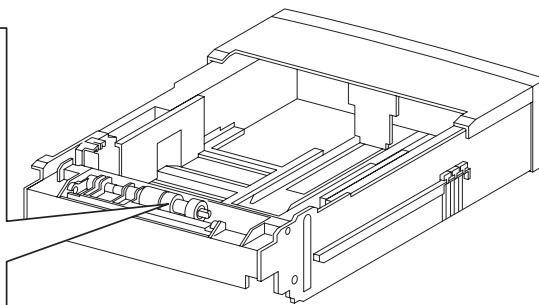
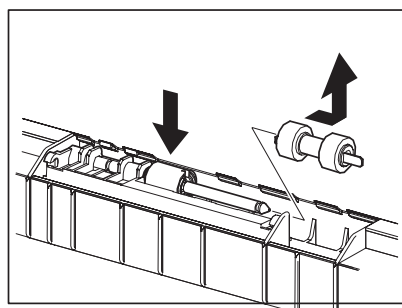
When removing, do not hold the rubber rollers of the ROLL ASSY RETARD.

NOTE

When removing HOLDER RETARD, be careful not to lose SPRING RETARD.



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Replacement

- 1) Install the ROLL ASSY RETARD to the SHFT RETARD (PL 12.3.4), and secure the ROLL ASSY RETARD with the hook.

NOTE

When installing, do not hold the rubber rollers of the ROLL ASSY RETARD.

NOTE

Be sure to install the hook of the ROLL ASSY RETARD into the groove of the SHAFT RETARD.

- 2) Move the HOLDER RETARD (PL 12.3.5) in the opposite direction of the arrow, and install it to the 550 PAPER CASSETTE (PL 12.3).

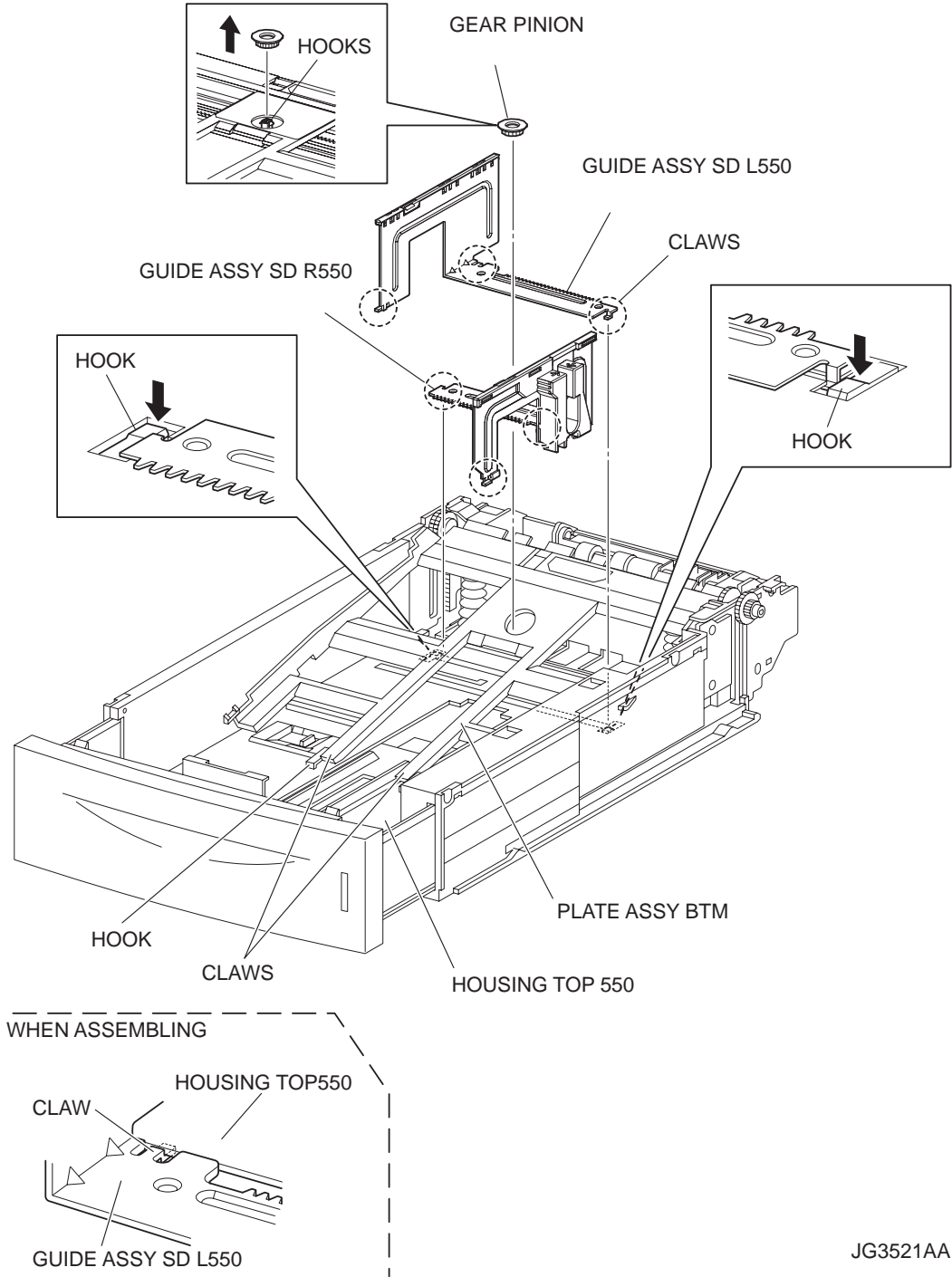
NOTE

After installing, make sure the HOLDER RETARD comes back to the former position with the spring force of the SPRING RETARD (PL 12.3.6), when pushing down the HOLDER RETARD and then release the finger from it.

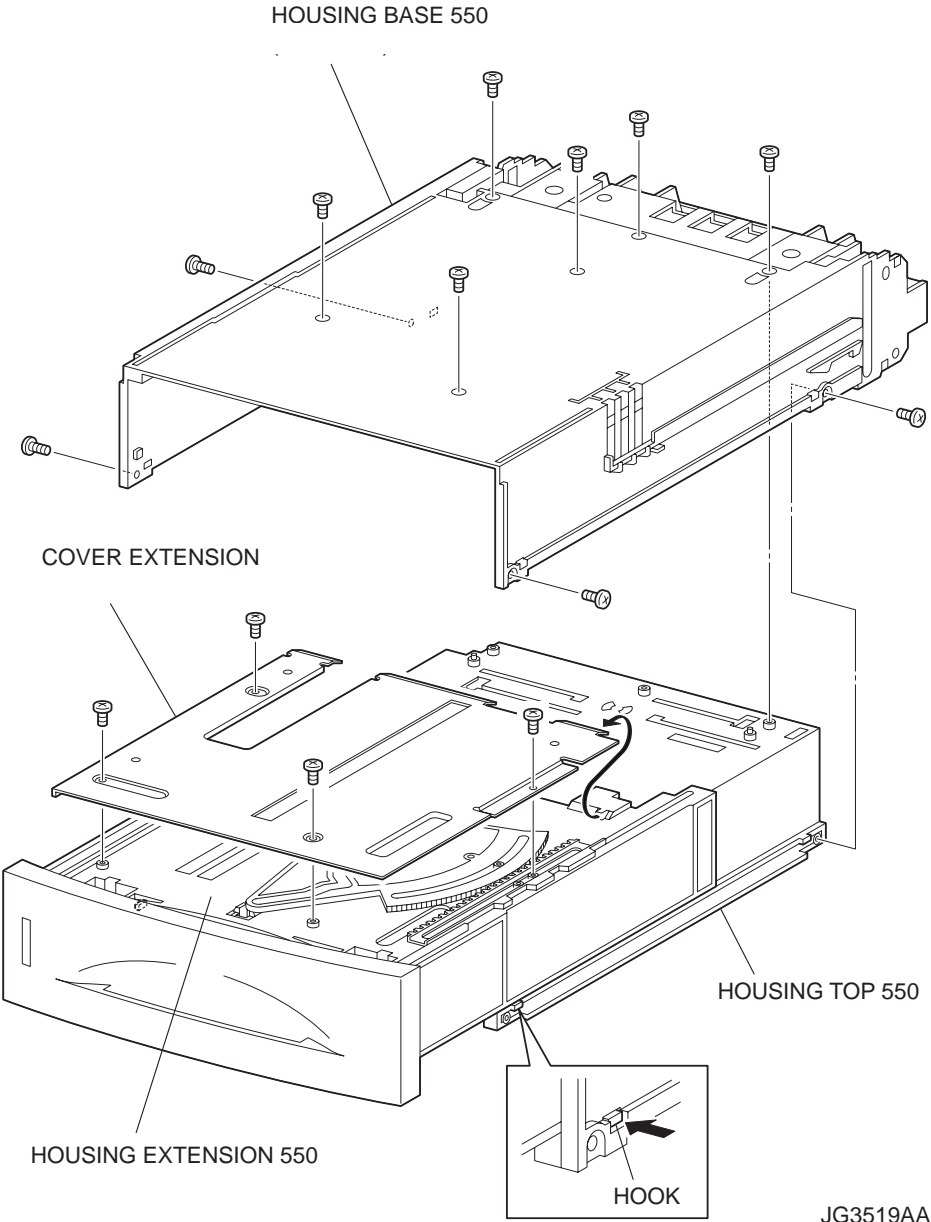
- 3) Install the 550 PAPER CASSETTE to the Option 550 Paper Feeder.

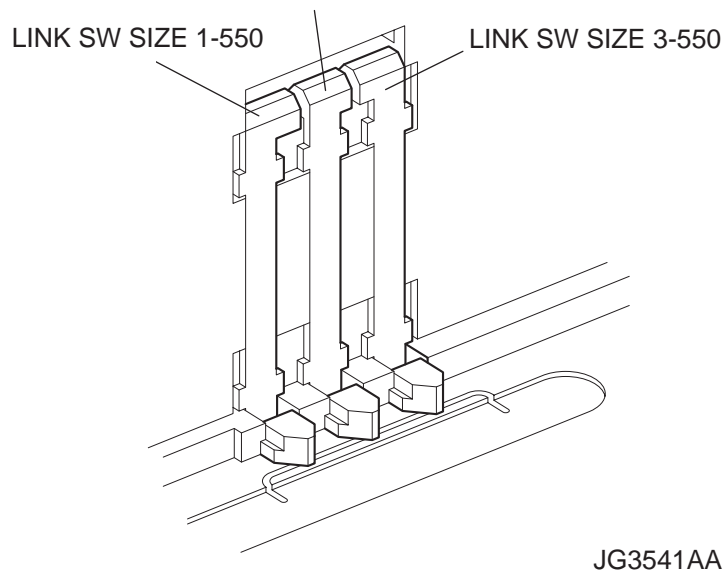
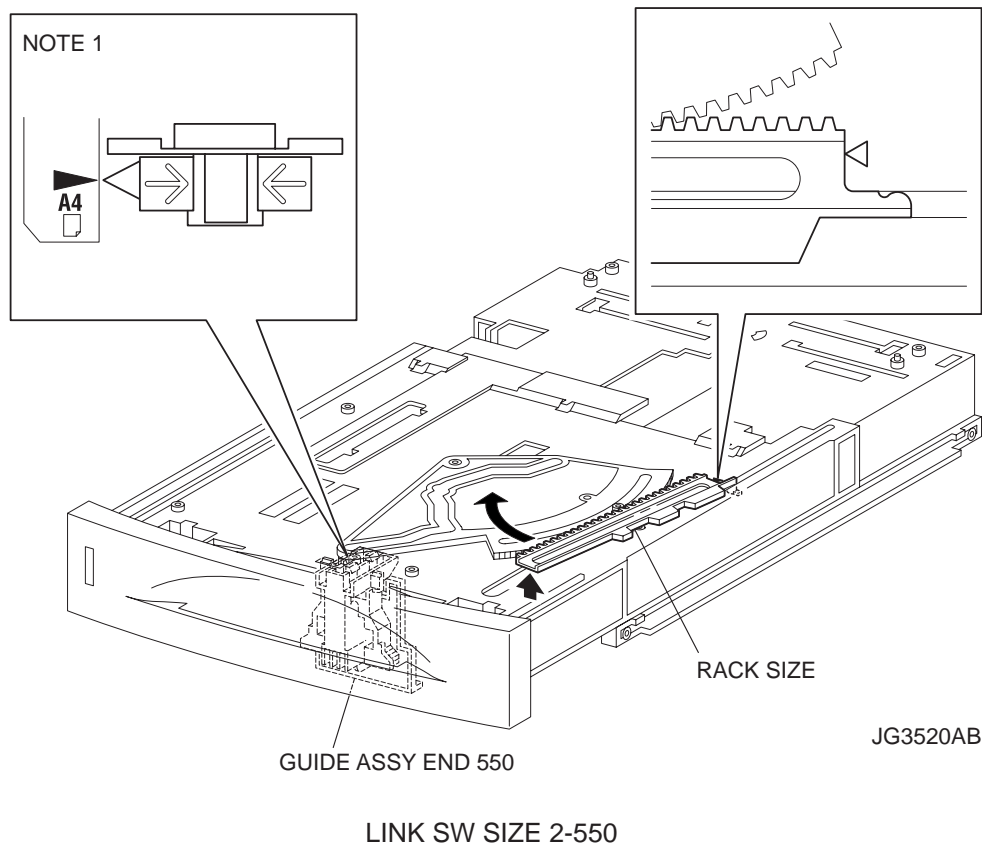
RRP12.18 RACK SIZE (PL12.3)**Removal**

- 1) Remove the COVER CST (PL 12.3.1) from the 550 PAPER CASSETTE (PL 12.3.50).
- 2) Release the lock of the LOCK EXTENSION, and draw out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 12.3.12) to the HOUSING TOP 550 (PL 12.3.16), and remove the GEAR PINION.
- 4) While pressing down the lock of the STOPPER GEAR (PL 12.3.29), release the lock of the LEVER BTM LOCK (PL 12.3.27) to lift up the PLATE ASSY BTM. (Figure 20.21)
- 5) Slide the GUIDE ASSY SD L550 (PL 12.3.11) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 6) Slide the GUIDE ASSY SD R550 (PL 12.3.13) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 7) Remove the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on back, that secure the HOUSING TOP 550 to the HOUSING BASE 550 (PL 12.3.44).
- 8) Release the 4 hooks of the HOUSING TOP 550, and remove the HOUSING TOP 550 together with the HOUSING EXTENSION 550 (PL 12.3.42) from the HOUSING BASE 550.
- 9) Remove the 4 screws (gold tapping, 6mm) securing the COVER EXTENSION (PL 12.3.31) to the HOUSING EXTENSION 550.
- 10) Remove the COVER EXTENSION from the HOUSING EXTENSION 550.
- 11) Lift the front end of the RACK SIZE a little, and turn it in the direction of the arrow to remove it from the HOUSING EXTENSION 550.



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Replacement

- 1) Put the hook on the tip of the RACK SIZE into the groove of the HOUSING EXTENSION 550 (PL 12.3.42), and turn it in the opposite direction of the arrow.
- 2) Align the end of the RACK SIZE with the triangle mark printed on the HOUSING EXTENSION 550 as shown in the figure, and install the RACK SIZE to the HOUSING EXTENSION 550.

NOTE

When installing the RACK SIZE, be sure to draw out the GUIDE ASSY END 550 (PL 12.3.43) as far as it will go.(NOTE 1).

- 3) Install the COVER EXTENSION (PL 12.3.31) to the HOUSING EXTENSION 550 using the 4 screws (gold tapping, 6mm).

NOTE

When installing, make sure the COVER EXTENSION is inserted under 3 claws of the HOUSING EXTENSION 550.(NOTE2).

NOTE

Use 6mm size of fixed screw. If 8mm size of screw is used, HOUSING EXTENSION 550 doesn't operate smoothly and LOCK EXTENSION 550 doesn't operate correctly.

- 4) Install the HOUSING EXTENSION 550 and HOUSING TOP 550 (PL 12.3.16) to the HOUSING BASE 550 while pushing the LINK SW SIZE1-550 (PL 12.3.45), LINK SW SIZE2-550 (PL 12.3.46) and LINK SW SIZE3-550 (PL 12.3.47) of the HOUSING BASE 550 outward as shown in the figure.

NOTE

Be sure to put 2 claws at the tip of the PLATE ASSY BTM under the hooks on the HOUSING TOP 550.(NOTE3).

- 5) After assembling the HOUSING TOP 550 with HOUSING BASE 550 using the 4 hooks, secure them using the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on back.

NOTE

After tightening the screws, move the GUIDE ASSY END 550 back and forth, and make sure that the LINK SW SIZES operate smoothly.

- 6) Insert the link lever of the GUIDE INDICATOR1 (PL 12.3.34) into the hole of the PLATE ASSY BTM. (Figure 20.21)
- 7) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSY SD R550 (PL 12.3.13) to the HOUSING TOP 550.(NOTE4).

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSY SD R550 sit correctly in the grooves of the HOUSING TOP 550.

- 8) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSY SD L550 (PL 12.3.11) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSY SD L550 sit correctly in the grooves of the HOUSING TOP 550.(NOTE4).

- 9) Push the PLATE ASSY BTM downward to lock.
- 10) With completely opened GUIDE ASSY SD L550 and GUIDE ASSY SD R550 to the both sides, Install the GEAR PINION (PL 12.3.12) to the HOUSING TOP 550.

NOTE

When installing the GEAR PINION, make sure the GUIDE ASSY SD R550 and GUIDE ASSY SD L550 are completely opened. If not, the side register may be misaligned.

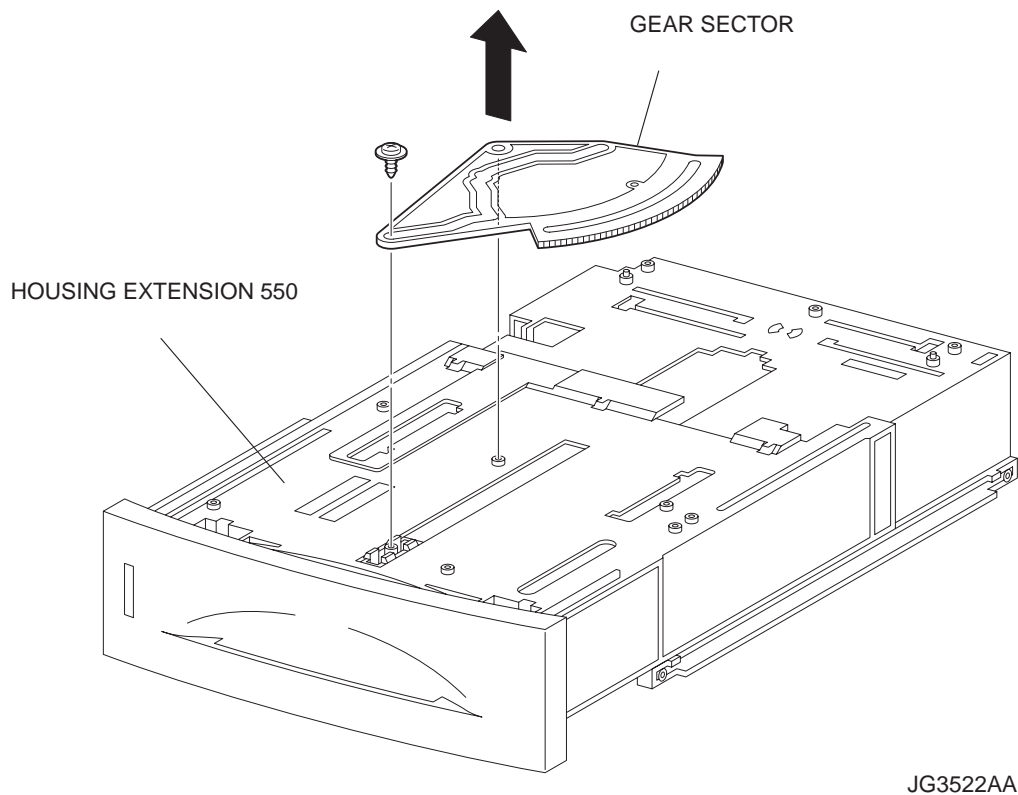
- 11) Install the COVER CST (PL 12.3.1) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSY BTM.

RRP12.19 GEAR SECTOR (PL12.3)**Removal**

- 1) Remove the COVER CST (PL 12.3.1) from the 550 PAPER CASSETTE (PL 12.3.50).
- 2) Release the lock of the LOCK EXTENSION, and draw out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 12.3.12) to the HOUSING TOP 550 (PL 12.3.16), and remove the GEAR PINION.
- 4) While pressing down the lock of the STOPPER GEAR (PL 12.3.29), release the lock of the LEVER BTM LOCK (PL 12.3.27) to lift up the PLATE ASSY BTM. (Figure 20.21)
- 5) Slide the GUIDE ASSY SD L550 (PL 12.3.11) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 6) Slide the GUIDE ASSY SD R550 (PL 12.3.13) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 7) Remove the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on back, that secure the HOUSING TOP 550 to the HOUSING BASE 550 (PL 12.3.44).
- 8) Release the 4 hooks of the HOUSING TOP 550, and remove the HOUSING TOP 550 together with the HOUSING EXTENSION 550 (PL 12.3.42) from the HOUSING BASE 550.
- 9) Remove the 4 screws (gold tapping, 6mm) securing the COVER EXTENSION (PL 12.3.31) to the HOUSING EXTENSION 550.
- 10) Remove the COVER EXTENSION from the HOUSING EXTENSION 550.
- 11) Remove the RACK SIZE (PL 12.3.40). (RRP12.18)
- 12) Remove the screw (black with flange, 8mm) securing the GEAR SECTOR.
- 13) Remove the GEAR SECTOR from the HOUSING EXTENSION 550.



Replacement

- 1) Install the GEAR SECTOR to the HOUSING EXTENSION 550 (PL 12.3.42).
- 2) Secure the GEAR SECTOR using the screw (black with flange, 8mm).
- 3) Install the RACK SIZE (PL 12.3.40). (RRP12.18)
- 4) Install the COVER EXTENSION (PL 12.3.31) to the HOUSING EXTENSION 550 using the 4 screws (gold tapping, 6mm).

NOTE

When installing, make sure the COVER EXTENSION is inserted under 3 claws of the HOUSING EXTENSION 550.

NOTE

Use 6mm size of fixed screw. If 8mm size of screw is used, HOUSING EXTENSION 550 doesn't operate smoothly and LOCK EXTENSION 550 doesn't operate correctly.

- 5) Install the HOUSING EXTENSION 550 and HOUSING TOP 550 (PL 12.3.16) to the HOUSING BASE 550 while pushing the LINK SW SIZE1-550 (PL 12.3.45), LINK SW SIZE2-550 (PL 12.3.46) and LINK SW SIZE3-550 (PL 12.3.47) of the HOUSING BASE 550 outward as shown in the figure. (Figure 20.18)

NOTE

Be sure to put 2 claws at the tip of the PLATE ASSY BTM under the hooks on the HOUSING TOP 550.

- 6) After assembling the HOUSING TOP 550 with HOUSING BASE 550 using the 4 hooks, secure them using the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on back.

NOTE

After tightening the screws, move the GUIDE ASSY END 550 back and forth, and make sure that the LINK SW SIZES operate smoothly.

- 7) Insert the link lever of the GUIDE INDICATOR1 (PL 12.3.34) into the hole of the PLATE ASSY BTM. (Figure20.24)
- 8) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSY SD R550 (PL 12.3.13) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSY SD R550 sit correctly in the grooves of the HOUSING TOP 550.

- 9) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSY SD L550 (PL 12.3.11) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSY SD L550 sit correctly in the grooves of the HOUSING TOP 550.

- 10) Push the PLATE ASSY BTM downward to lock.
- 11) With completely opened GUIDE ASSY SD L550 and GUIDE ASSY SD R550 to the both sides, install the GEAR PINION (PL 12.3.12) to the HOUSING TOP 550.

NOTE

When installing the GEAR PINION, make sure the GUIDE ASSY SD R550 and GUIDE ASSY SD L550 are completely opened. If not, the side register may be misaligned.

- 12) Install the COVER CST (PL 12.3.1) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSY BTM.

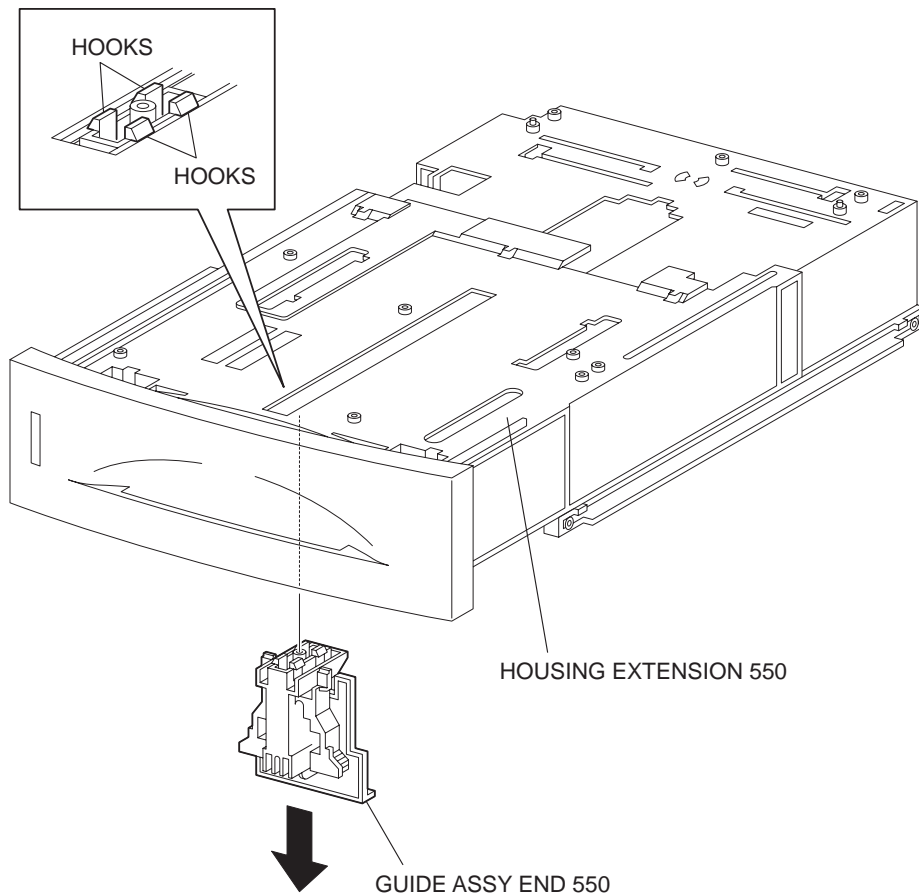
RRP12.20 GUIDE ASSY END 550 (PL12.3)**Removal**

- 1) Remove the COVER CST (PL 12.3.1) from the 550 PAPER CASSETTE (PL 12.3.50).
- 2) Release the lock of the LOCK EXTENSION, and draw out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 12.3.12) to the HOUSING TOP 550 (PL 12.3.16), and remove the GEAR PINION.
- 4) While pressing down the lock of the STOPPER GEAR (PL 12.3.29), release the lock of the LEVER BTM LOCK (PL 12.3.27) to lift up the PLATE ASSY BTM.
- 5) Slide the GUIDE ASSY SD L550 (PL 12.3.11) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 6) Slide the GUIDE ASSY SD R550 (PL 12.3.13) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 7) Remove the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on back, that secure the HOUSING TOP 550 to the HOUSING BASE 550 (PL 12.3.44).
- 8) Release the 4 hooks of the HOUSING TOP 550, and remove the HOUSING TOP 550 together with the HOUSING EXTENSION 550 (PL 12.3.42) from the HOUSING BASE 550.
- 9) Remove the 4 screws (gold tapping, 6mm) securing the COVER EXTENSION (PL 12.3.31) to the HOUSING EXTENSION 550.
- 10) Remove the COVER EXTENSION from the HOUSING EXTENSION 550.
- 11) Remove the RACK SIZE (PL 12.3.40). (RRP12.18)
- 12) Remove the GEAR SECTOR (PL 12.3.39) (RRP12.19)
- 13) Release the hooks securing the GUIDE ASSY END 550 to the HOUSING EXTENSION 550 (PL 12.3.42).

NOTE

Be careful handling the hooks of the GUIDE ASSY END 550. They are fragile and could break if given excessive force.

- 14) Remove the GUIDE ASSY END 550 from the HOUSING EXTENSION 550.



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Replacement

- 1) Secure the GUIDE ASSY END 550 to the HOUSING EXTENSION 550 (PL 12.3.42) using the 4 hooks.
- 2) Install the GEAR SECTOR (PL 12.3.39). (RRP12.19)
- 3) Install the RACK SIZE (PL 12.3.40). (RRP12.18)
- 4) Install the COVER EXTENSION (PL 12.3.31) to the HOUSING EXTENSION 550 using the 4 screws (gold tapping, 6mm).

NOTE

When installing, make sure the COVER EXTENSION is inserted under 3 claws of the HOUSING EXTENSION 550.

NOTE

Use 6mm size of fixed screw. If 8mm size of screw is used, HOUSING EXTENSION 550 doesn't operate smoothly and LOCK EXTENSION 550 doesn't operate correctly.

- 5) Install the HOUSING EXTENSION 550 and HOUSING TOP 550 (PL 12.3.16) to the HOUSING BASE 550 while pushing the LINK SW SIZE1-550 (PL 12.3.45), LINK SW SIZE2-550 (PL 12.3.46) and LINK SW SIZE3-550 (PL 12.3.47) of the HOUSING BASE 550 outward as shown in the figure. (Figure 20.18)

NOTE

Be sure to put 2 claws at the tip of the PLATE ASSY BTM under the hooks on the HOUSING TOP 550.

- 6) After assembling the HOUSING TOP 550 with HOUSING BASE 550 using the 4 hooks, secure them using the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on back.

NOTE

After tightening the screws, move the GUIDE ASSY END 550 back and forth, and make sure that the LINK SW SIZES operate smoothly.

- 7) Insert the link lever of the GUIDE INDICATOR1 into the hole of the PLATE ASSY BTM.
- 8) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSY SD R550 (PL 12.3.13) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSY SD R550 sit correctly in the grooves of the HOUSING TOP 550.

- 9) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSY SD L550 (PL 12.3.11) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSY SD L550 sit correctly in the grooves of the HOUSING TOP 550.

- 10) Push the PLATE ASSY BTM downward to lock.
- 11) With completely opened GUIDE ASSY SD L550 and GUIDE ASSY SD R550 to the both sides, install the GEAR PINION (PL 12.3.12) to the HOUSING TOP 550.

NOTE

When installing the GEAR PINION, make sure the GUIDE ASSY SD R550 and GUIDE ASSY SD L550 are completely opened. If not, the side register may be misaligned.

- 12) Install the COVER CST (PL 12.3.1) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSY BTM.

RRP12.21 PLATE ASSY BTM (PL12.3)**Removal**

- 1) Remove the COVER CST (PL 12.3.1) from the 550 PAPER CASSETTE (PL 12.3.50).
- 2) Release the lock of the LOCK EXTENSION, and draw out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 12.3.12) to the HOUSING TOP 550 (PL 12.3.16), and remove the GEAR PINION.
- 4) While pressing down the lock of the STOPPER GEAR (PL 12.3.29), release the lock of the LEVER BTM LOCK (PL 12.3.27) to lift up the PLATE ASSY BTM.
- 5) Slide the GUIDE ASSY SD L550 (PL 12.3.11) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 6) Slide the GUIDE ASSY SD R550 (PL 12.3.13) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.

NOTE

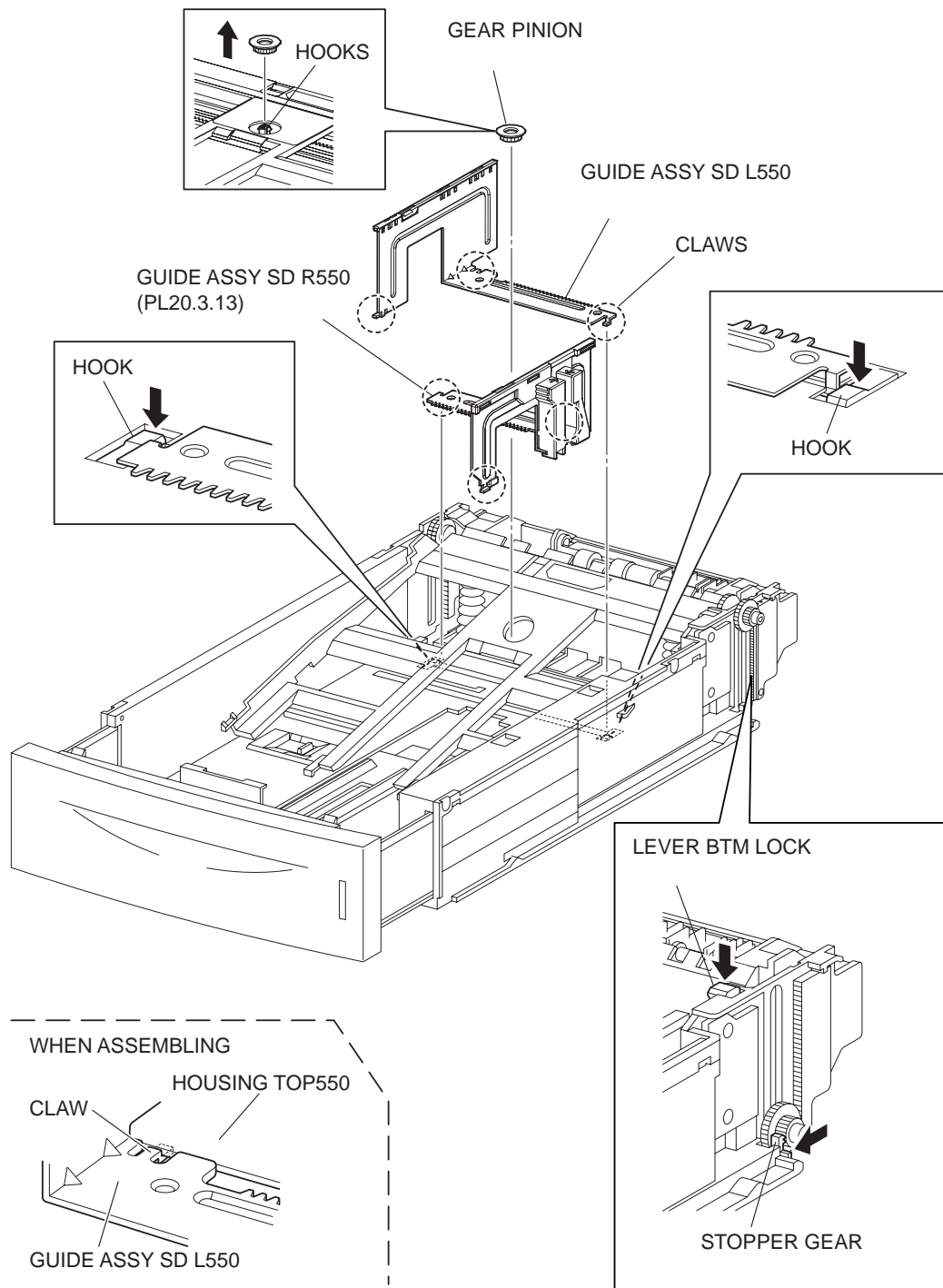
In the following steps, the GEAR PB L (PL 12.3.7), GEAR BTM DMP ONEWAY (PL 12.3.8) and GEAR BTM LOCK ONEWAY (PL 12.3.15) will be detached, and be careful not to lose these gears.

- 7) Release the hook of the GEAR PB R (PL 12.3.20), and remove the GEAR PB R from the SHAFT PB (PL 12.3.9).

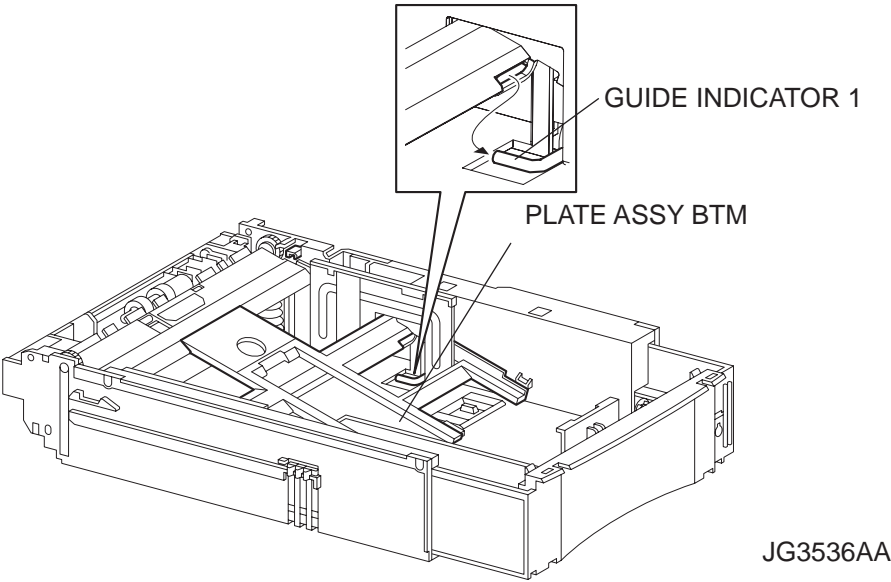
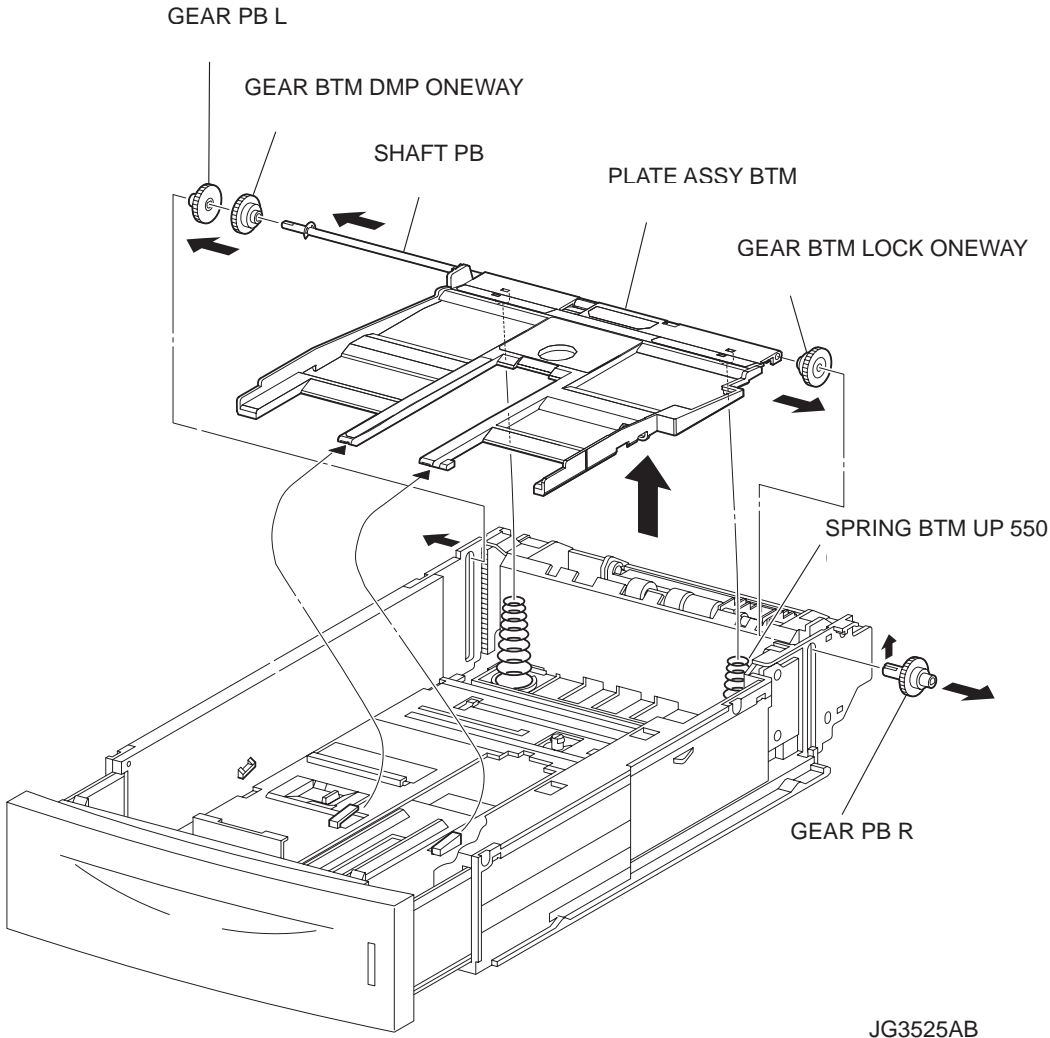
NOTE

It is hard to remove GEAR PB R. When removing it, be careful not to break it.

- 8) Disengage the GEAR PB L from the PLATE GEAR LOCK 550 while bending the HOUSING BASE 550 in the direction of the arrow, and remove the PLATE ASSY BTM together with the SHAFT PB, GEAR PB L, GEAR BTM DMP ONEWAY and GEAR BTM LOCK ONEWAY from the HOUSING TOP 550.
- 9) Pull out the SHAFT PB from the PLATE ASSY BTM, and remove the GEAR PB L, GEAR BTM DMP ONEWAY and GEAR BTM LOCK ONEWAY.



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Replacement

- 1) Insert the SHAFT PB (PL 12.3.9) into the PLATE ASSY BTM, and insert the GEAR BTM DMP ONEWAY, GEAR PB L and GEAR BTM LOCK ONEWAY to the SHAFT PB.
- 2) While disengaging the GEAR PB L, install the assembled PLATE ASSY BTM to the HOUSING TOP 550 (PL 12.3.16).

NOTE

When installing the PLATE ASSY BTM, be sure to put 2 SPRING BTM UP 550s (PL 12.3.18) into the bosses on the back of the PLATE ASSY BTM.(NOTE1).

NOTE

Be sure to put 2 claws at the tip of the PLATE ASSY BTM under the hooks on the HOUSING TOP 550.(NOTE2).

- 3) Insert the link lever of the GUIDE INDICATOR1 (PL 12.3.34) into the hole of the PLATE ASSY BTM.
- 4) Install the GEAR PB R (PL 12.3.20) to the SHAFT PB, and secure it with the hook.

NOTE

Be sure to install the hook of the GEAR PB R into the groove of the SHAFT PB. (NOTE3).

NOTE

When installing the PLATE GEAR LOCK 550, be sure to lift up the PLATE ASSY BTM. If the PLATE ASSY BTM is inclined, a paper skew or jam may occur. Check after the installation is completed.

- 5) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSY SD R550 (PL 12.3.13) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSY SD R550 sit correctly in the grooves of the HOUSING TOP 550.

- 6) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSY SD L550 (PL 12.3.11) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSY SD L550 sit correctly in the grooves of the HOUSING TOP 550.

- 7) Push the PLATE ASSY BTM downward to lock.
- 8) Install the GEAR PINION (PL 12.3.12) to the HOUSING TOP 550.

NOTE

When installing the GEAR PINION, make sure the GUIDE ASSY SD R550 and GUIDE ASSY SD L550 are completely opened. If not, the side register may be misaligned.

- 9) Install the COVER CST (PL 12.3.1) to the 550 PAPER CASSETTE.

NOTE

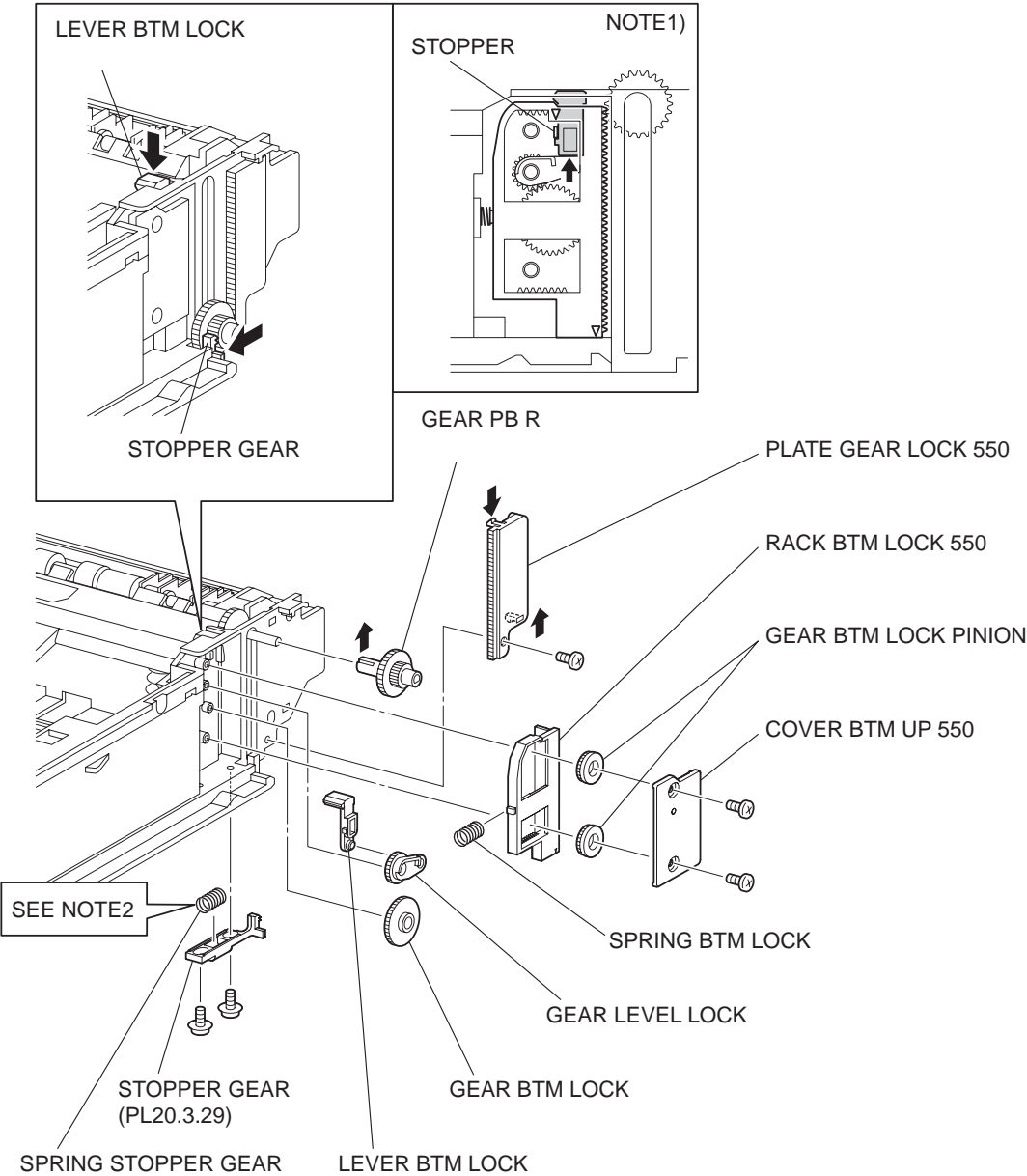
After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSY BTM.

RRP12.22 GEAR LEVER LOCK (PL12.3), LEVER BTM LOCK (PL12.3)**Removal**

- 1) Remove the COVER CST (PL 12.3.1) from the 550 PAPER CASSETTE (PL 12.3.50).
- 2) Release the lock of the LOCK EXTENSION, and draw out the cassette extension as far as it will go.
- 3) While pressing down the lock of the STOPPER GEAR (PL 12.3.29), release the lock of LEVER BTM LOCK (PL 12.3.27) to lift up the PLATE ASSY BTM (PL 12.3.10).
- 4) Remove the screw (gold tapping, 8mm) securing the PLATE GEAR LOCK 550 (PL 12.3.19) at the GEAR PB R (PL 12.3.20) side.
- 5) Release the hook of the PLATE GEAR LOCK 550, and remove it from the HOUSING BASE 550 (PL 12.3.44).
- 6) Release the hook of the GEAR PB R, and remove the GEAR PB R from the SHAFT PB (PL 12.3.9).
- 7) Remove the 2 screws (gold tapping, 6mm) securing the COVER BTM UP 550 (PL 12.3.22), and remove it from the HOUSING BASE 550.
- 8) Remove 2 GEAR LOCK PINIONS (PL 12.3.23) from the HOUSING BASE 550.
- 9) Remove the RACK BTM LOCK 550 (PL 12.3.21) together with the SPRING BTM LOCK (PL 12.3.24) from the HOUSING BASE 550.
- 10) Remove the GEAR BTM LOCK (PL 20.3.25) from the HOUSING BASE 550.
- 11) Remove the GEAR LEVER LOCK from the HOUSING BASE 550.
- 12) Remove the 2 screws (gold tapping, 6mm) securing the STOPPER GEAR (PL 12.3.29), and remove the STOPPER GEAR and SPRING STOPPER GEAR (PL 12.3.28) from the HOUSING BASE 550.

NOTE

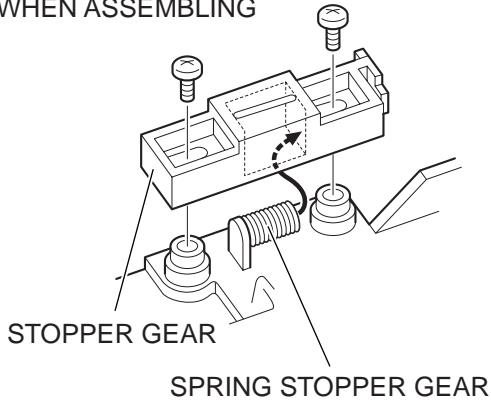
When removing the STOPPER GEAR, be careful not to lose the SPRING STOPPER GEAR.



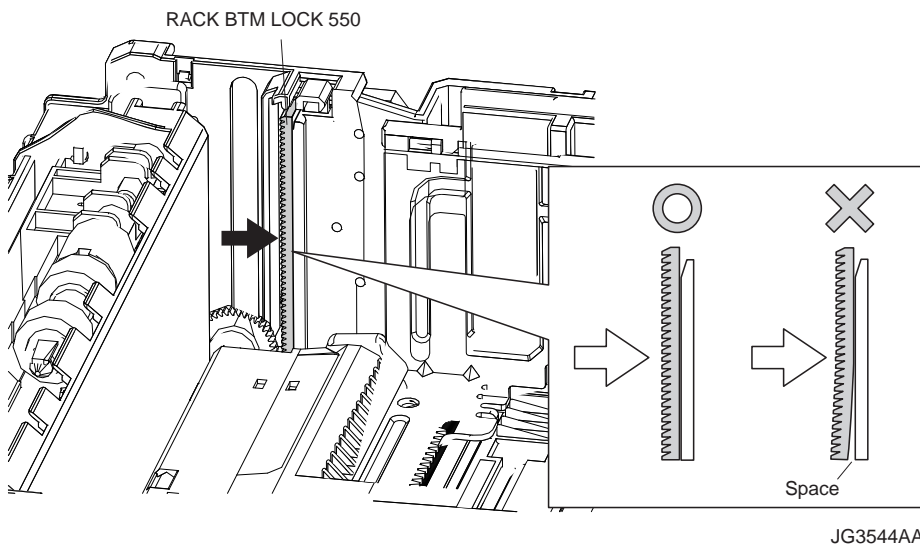
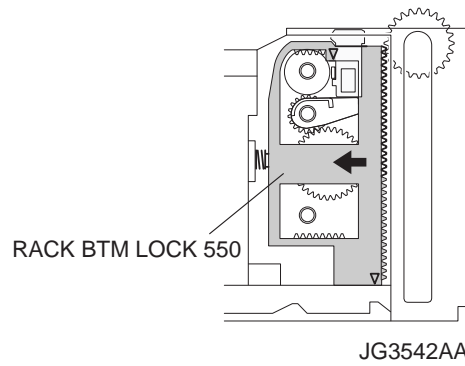
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NOTE2 (REAR VIEW)

WHEN ASSEMBLING



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Replacement

NOTE

When installing, be sure to lift up the PLATE ASSY BTM. If the PLATE ASSY BTM is inclined, a paper skew or jam may occur. Check after the installation is completed.

- 1) Put the SPRING STOPPER GEAR (PL 12.3.28) into the STOPPER GEAR (PL 12.3.29), and secure the STOPPER GEAR to the HOUSING BASE 550 (PL 12.3.44) using the 2 screws (gold tapping, 6mm).

NOTE

When installing the STOPPER GEAR, be careful not to lose the SPRING STOPPER GEAR.

NOTE

Install the STOPPER GEAR so that one end of the SPRING STOPPER GEAR is in contact with the plate located on the back of the HOUSING BASE 550 as shown in the figure.

(NOTE 2)

- 2) Install the GEAR LEVER LOCK to the HOUSING BASE 550.
- 3) Install the GEAR BTM LOCK (PL 12.3.25) to the HOUSING BASE 550.
- 4) Install the SPRING BTM LOCK (PL 12.3.24) to the projection of the RACK BTM LOCK 550 (PL 12.3.21), and install them to the HOUSING BASE 550.

NOTE

When installing the RACK BTM LOCK 550, be sure to install it with the LEVER BTM LOCK lifted up. After installing, check that the projection of the LEVER BTM LOCK hits the stopper of the HOUSING BASE 550 and the triangle mark is placed above the stopper, when pushing down the LEVER BTM LOCK and then release the finger from it.

(NOTE1)

5) Install 2 GEAR LOCK PINIONS (PL 12.3.23) to the HOUSING BASE 550, and put them into the state of being in gear.

NOTE

Install the lower GEAR BTM PINION after installing the upper GEAR BTM LOCK PINION. When installing the lower GEAR BTM PINION, press RACK BTM LOCK 550 in the direction of arrow until it bumps into the edge. (NOTE3)

- 6) Secure the COVER BTM UP 550 (PL 12.3.22) to the HOUSING BASE 550 using the screw (gold tapping, 6mm).
- 7) Install the GEAR PB R (PL 12.3.20) to the SHAFT PB (PL 12.3.9), and secure it with the hook.

NOTE

Be sure to install the hook of the GEAR PB R into the groove of the SHAFT PB.

- 8) Install the PLATE GEAR LOCK 550 (PL 12.3.19) to the HOUSING BASE 550, and secure it with the hook.
- 9) Secure the PLATE GEAR LOCK 550 using the screw (gold tapping, 8mm).
- 10) Push the PLATE ASSY BTM (PL 12.3.10) downward to lock.

NOTE

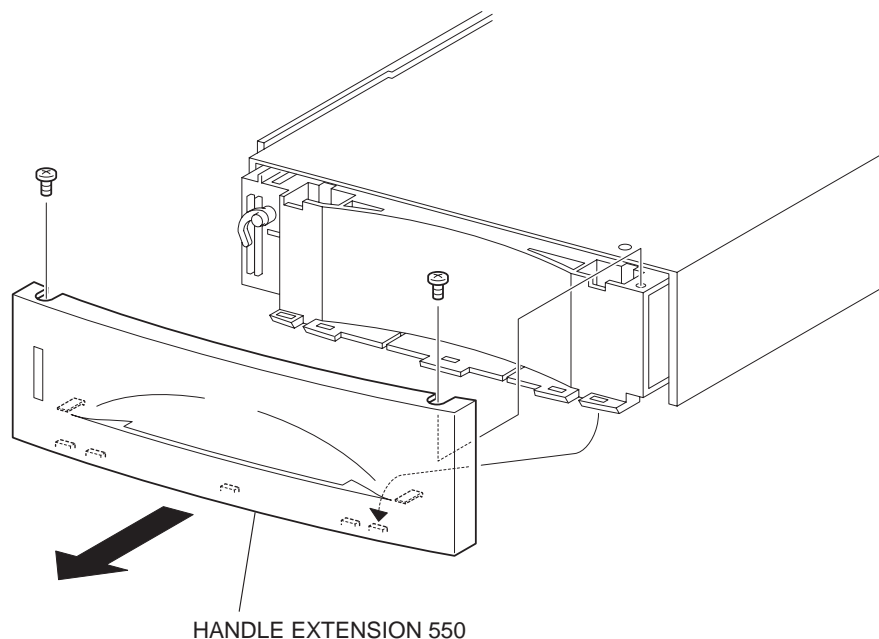
Confirm that there is no space between RACK BTM LOCK 550 and HOUSING BASE 550 when pressing the center of RACK BTM LOCK 550 against HOUSING BASE 550.

RRP12.23 HANDLE EXTENSION 550 (PL12.1)**Removal**

- 1) Remove the COVER CST (PL 12.3.1) from the 550 PAPER CASSETTE (PL 12.3.50).
- 2) Remove the 2 screws on the back side of the HANDLE EXTENSION 550 (PL 12.3.41).
- 3) Release the 5 hooks at the upper side and the 2 hooks at the lower side of the HANDLE EXTENSION 550 (PL 12.3.41). then, remove the HANDLE EXTENSION 550 from the HOUSING EXTENSION 550 (PL 12.3.42).

NOTE

When removing the HANDLE EXTENSION 550, the LOW INDICATOR (PL 12.3.37) and LOW IND FRONT (PL 12.3.38) will be detached, and be careful not to lose them.



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Replacement

- 1) Install the LOW INDICATOR (PL 12.3.37) and LOW IND FRONT (PL 12.3.38). (RRP12.26)
- 2) Put the 5 hooks on the upper side and 2 hooks on the lower side of the HANDLE EXTENSION 550 to the HOUSING EXTENSION 550 (PL 12.3.42),
- 3) Secure the HANDLE EXTENSION 550 (PL 12.3.41) to the HOUSING EXTENSION 550 (PL 12.3.42) using the 2 screws.
- 4) Install the COVER CST (PL 12.3.1) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSY BTM.

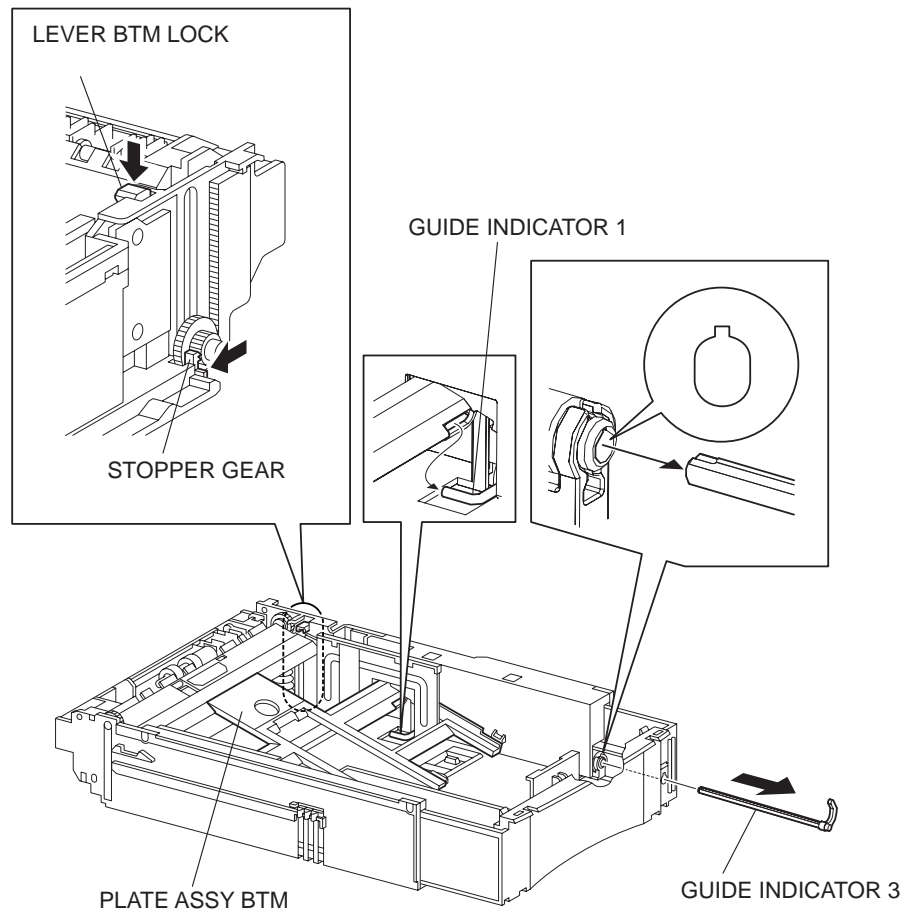
RRP12.24 GUIDE INDICATOR 3 (PL12.3)**Removal**

- 1) Remove the COVER CST (PL 12.3.1) from the 550 PAPER CASSETTE (PL 12.3.50).
- 2) Remove the HANDLE EXTENSION 550 (PL 12.3.41). (RRP12.23)

NOTE

When removing the HANDLE EXTENSION 550, the LOW INDICATOR (PL 12.3.37) and LOW IND FRONT (PL 12.3.38) will be detached. Be careful not to lose them.

- 3) While pressing down the lock of the STOPPER GEAR (PL 12.3.29), release the lock of the LEVER BTM LOCK (PL 12.3.27) and lift up the PLATE ASSY BTM (PL 12.3.10).
- 4) Remove the link lever of the GUIDE INDICATOR 1 (PL 12.3.34) from the hole of the PLATE ASSY BTM.
- 5) While pressing the link lever down to the bottom side of the 550 PAPER CASSETTE, slowly but firmly draw the GUIDE INDICATOR 3 out from the front side of the HOUSING EXTENSION 550 (PL 12.3.42).



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Replacement

- 1) While pressing the link lever down to the bottom side of the 550 PAPER CASSETTE, insert the GUIDE INDICATOR 3 to the HOUSING EXTENSION 550 (PL 12.3.42) from the front side.

NOTE

Be sure to align the groove of the GUIDE INDICATOR 1 and the projection of the GUIDE INDICATOR 3.

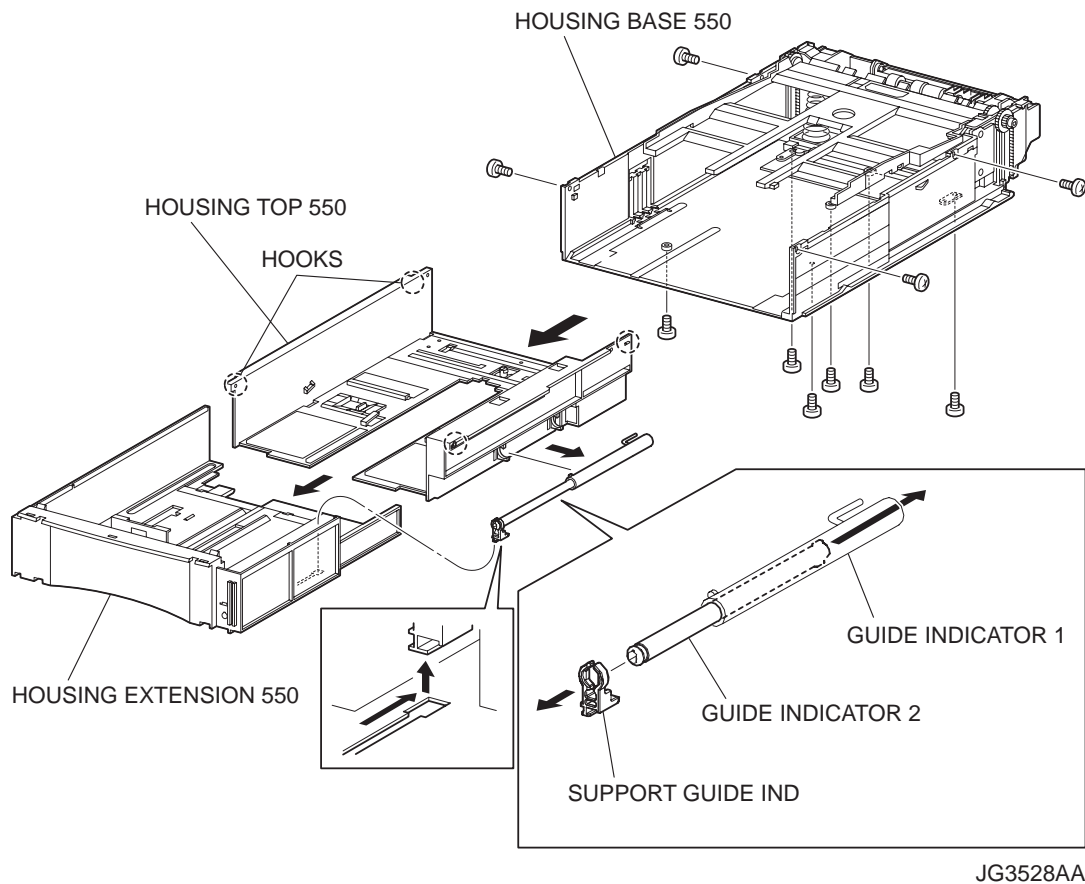
- 2) Insert the link lever of the GUIDE INDICATOR 1 (PL 12.3.34) to the hole of the PLATE ASSY BTM.
- 3) Install the LOW INDICATOR (PL 12.3.37) and LOW IND FRONT (PL 12.3.38). (RRP12.26)
- 4) Install the HANDLE EXTENSION 550 (PL 12.3.41). (RRP12.23)
- 5) Install the COVER CST (PL 12.3.1) to the 5550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSY BTM

RRP12.25 GUIDE INDICATOR 2 (PL12.3)**Removal**

- 1) Remove the COVER CST (PL 12.3.1) from the 550 PAPER CASSETTE (PL 12.3.50).
- 2) Release the lock of the LOCK EXTENSION, and draw out the cassette extension as far as it will go.
- 3) Release the hooks securing the GEAR PINION (PL 12.3.12) to the HOUSING TOP 550 (PL 12.3.16), and remove the GEAR PINION.
- 4) While pressing down the lock of the STOPPER GEAR (PL 12.3.29), release the lock of the LEVER BTM LOCK (PL 12.31.27) to lift up the PLATE ASSY BTM. (Figure 20.24)
- 5) Slide the GUIDE ASSY SD L550 (PL 12.3.11) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 6) Slide the GUIDE ASSY SD R550 (PL 12.3.13) inward, and remove it from the HOUSING TOP 550 by pressing down the hook of the HOUSING TOP 550.
- 7) Remove the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on back, that secure the HOUSING TOP 550 to the HOUSING BASE 550 (PL 12.3.44).
- 8) Turn the 550 PAPER CASSETTE over, and pull out the HOUSING TOP 550 forward about 20 mm to release the claws at the tip of the PLATE ASSY BTM from the hooks of the HOUSING TOP 550.
- 9) Release the 4 hooks of the HOUSING TOP 550, and remove the HOUSING TOP 550 and HOUSING EXTENSION 550 (PL 12.3.42) from the HOUSING BASE 550.
- 10) Slide the SUPPORT GUIDE IND (PL 12.3.32), and remove it from the groove of the HOUSING EXTENSION 550. Then, separate the HOUSING TOP 550 and HOUSING EXTENSION 550.
- 11) Remove the GUIDE INDICATOR 1 (PL 12.3.34) from the hooks of the HOUSING TOP 550, and remove the SUPPORT GUIDE IND together with the GUIDE INDICATOR 1 and GUIDE INDICATOR 2 from the HOUSING TOP 550.
- 12) Release the hook of the SUPPORT GUIDE IND, and remove the SUPPORT GUIDE IND from the GUIDE INDICATOR 2.
- 13) Extract the GUIDE INDICATOR 2 from the back side of the GUIDE INDICATOR 1.



Replacement

- 1) Insert the GUIDE INDICATOR 2 into the hole of the GUIDE INDICATOR 1 (PL 12.3.34) from back.
- 2) Install the SUPPORT GUIDE IND (PL 12.3.32) to the GUIDE INDICATOR 2, and secure it with the hook.

NOTE

Install the SUPPORT GUIDE IND to the GUIDE INDICATOR 2 in the direction shown in the figure.

- 3) Install the SUPPORT GUIDE IND together with the GUIDE INDICATOR 1 and GUIDE INDICATOR 2 to the HOUSING TOP 550 (PL 12.3.16), and secure the GUIDE INDICATOR 1 using the 2 hooks of the HOUSING TOP 550.
- 4) Slide the SUPPORT GUIDE IND along the groove of the HOUSING EXTENSION 550 to install, and assemble the HOUSING TOP 550 and HOUSING EXTENSION 550 into 1 unit.
- 5) Install the HOUSING EXTENSION 550 and HOUSING TOP 550 (PL 12.3.16) to the HOUSING BASE 550 while pushing the LINK SW SIZE1-550 (PL 12.3.45), LINK SW SIZE2-550 (PL 12.3.46) and LINK SW SIZE3-550 (PL 12.3.47) of the HOUSING BASE 550 outward as shown in the figure. (Figure 20.18)

NOTE

Be sure to put 2 claws at the tip of the PLATE ASSY BTM under the hooks on the HOUSING TOP 550.

- 6) After assembling the HOUSING TOP 550 with HOUSING BASE 550 using the 4 hooks, secure them using the 2 screws (gold tapping, 8mm) from both right and left sides, as well as the 6 screws (gold tapping, 8mm) on back.

NOTE

After tightening the screws, move the GUIDE ASSY END 550 back and forth, and make sure that the LINK SW SIZES operate smoothly.

- 7) Insert the link lever of the GUIDE INDICATOR1 (PL 12.3.34) into the hole of the PLATE ASSY BTM.
- 8) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSY SD R550 (PL 12.3.13) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSY SD R550 sit correctly in the grooves of the HOUSING TOP 550.

- 9) While pressing down the hook of the HOUSING TOP 550, install the GUIDE ASSY SD L550 (PL 12.3.11) to the HOUSING TOP 550.

NOTE

After installing, make sure that the 3 claws of the GUIDE ASSY SD L550 sit correctly in the grooves of the HOUSING TOP 550.

- 10) Push the PLATE ASSY BTM downward to lock.
- 11) Install the GEAR PINION (PL 12.31.12) to the HOUSING TOP 550.

NOTE

When installing the GEAR PINION, make sure the GUIDE ASSY SD R550 and GUIDE ASSY SD L550 are completely opened. If not, the side register may be misaligned.

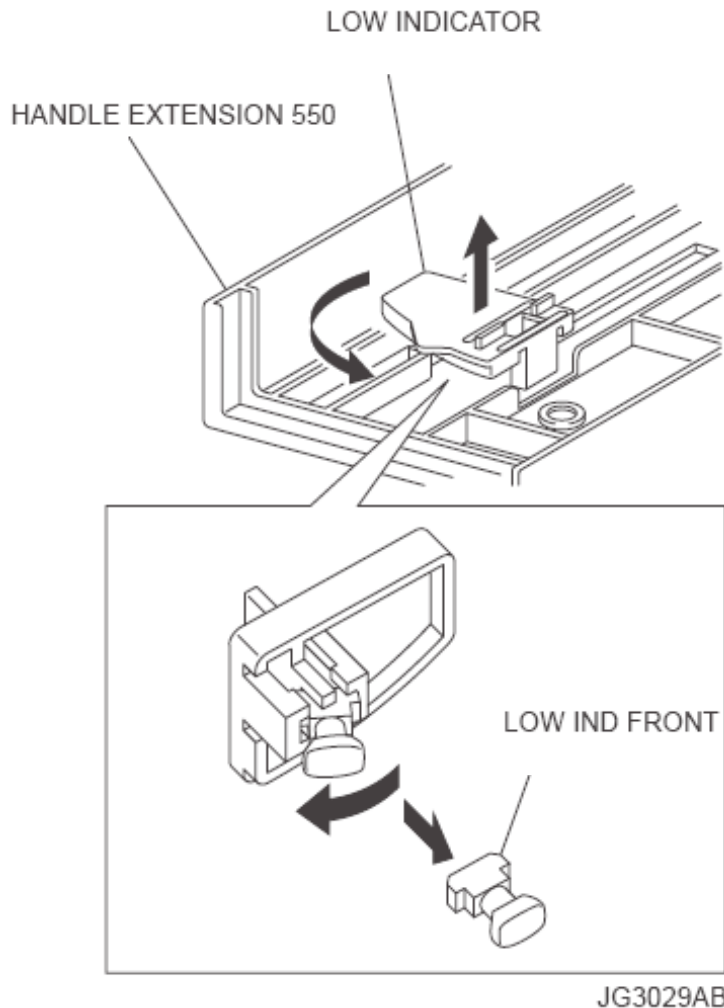
- 12) Install the COVER CST (PL 12.3.1) to the 550 PAPER CASSETTE.

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSY BTM

RRP12.26 LOW IND FRONT (PL12.3)**Removal**

- 1) Remove the COVER CST (PL 12.3.1) from the 550 PAPER CASSETTE (PL 12.3.50).
- 2) Remove the HANDLE EXTENSION 550 (PL 12.3.41). (RRP12.23)
- 3) Turn the LOW INDICATOR (PL 12.3.37) by 90 degrees, and remove it together with the LOW IND FRONT from the HANDLE EXTENSION 550.
- 4) Release the hook on the one side of the LOW IND FRONT, and remove the LOW IND FRONT from the LOW INDICATOR.

**Replacement**

- 1) Install the LOW INDICATOR (PL 12.3.37) to the LOW INDICATOR.

NOTE

When installing the LOW IND FRONT to the LOW INDICATOR, be careful in the installing direction of the LOW IND FRONT.

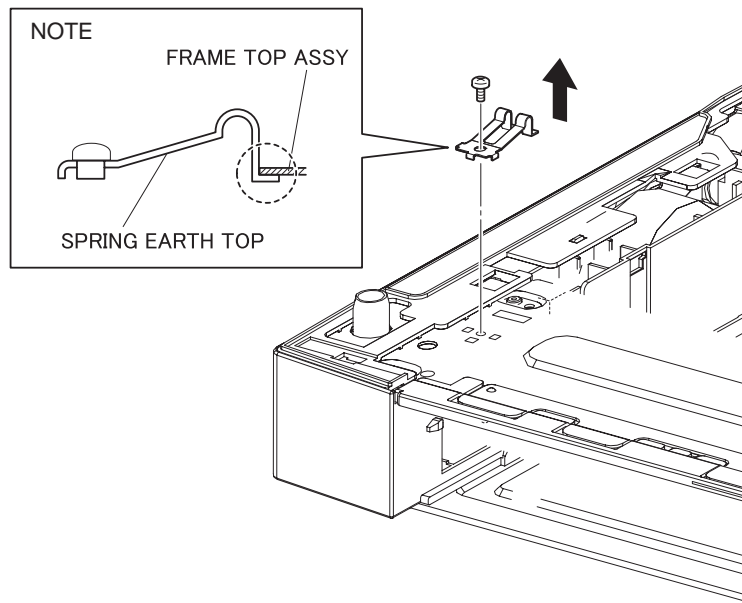
- 2) Turn the LOW INDICATOR by 90 degrees in the opposite direction of the arrow, and install it together with the LOW IND FRONT to the HANDLE EXTENSION 550.
- 3) Install the HANDLE EXTENSION 550 (PL 12.3.41). (RRP12.23)
- 4) Install the COVER CST (PL 12.3.1) to the 550 PAPER CASSETTE (PL 12.3.50).

NOTE

After assembling, make sure that the LOW IND FRONT moves up-and-down in conjunction with the up-and-down movement of the PLATE ASSY BTM

RRP12.27 SPRING EARTH TOP (PL12.2)**Removal**

- 1) Remove the screw (silver, 6mm) securing the SPRING EARTH TOP to the FRAME TOP ASSY (PL 12.1.7).
- 2) Remove the SPRING EARTH TOP.



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Replacement

- 1) Put the tip of the SPRING EARTH TOP into the hole of the FRAME TOP ASSY (PL 12.1.7), and secure it using the screw (silver, 6mm).

NOTE

The tip of the SPRING EARTH TOP should be put into the hole and should not be on the FRAME TOP ASSY

NOTE

After installation, when the top of the SPRING EARTH TOP is depressed, make sure that it moves downward.

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Chapter 4 Print Engine Plug/Jack Connector Locations

1. Connector [P (plug) / J (jack)]

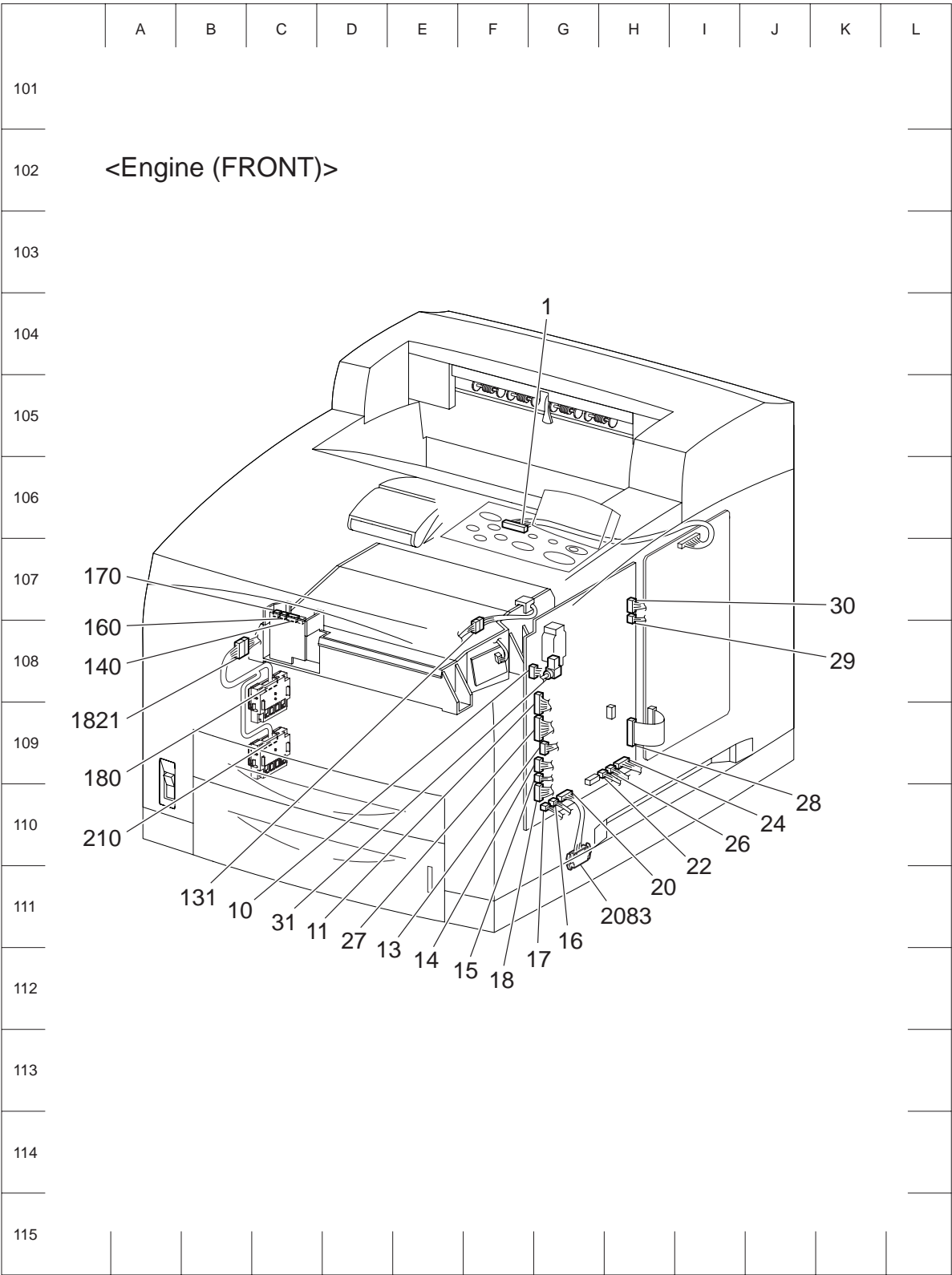
1.1 List of P/J

P/J	Coordinates	Remarks
1	G-104	Connects OPERATION PANEL and HARNESS ASSY PANEL
10	B-111	Connects HARNESS ASSY LVPS and HVPS/MCU
11	D-111	Connects HARNESS ASSY LVPS and HVPS/MCU
13	E-111	Connects HARNESS ASSY ROS and HVPS/MCU
14	E-112	Connects HARNESS ASSY ROS and HVPS/MCU
15	F-112	Connects HARNESS ASSY ANT and HVPS/MCU
16	G-111	Connects HARNESS ASSY ROS and HVPS/MCU
17	G-111	Connects HARNESS ASSY ROS and HVPS/MCU
18	F-112	Connects HARNESS ASSY LVPS and HVPS/MCU
20	H-111	Connects HARNESS ASSY FDR1 and HVPS/MCU
22	I-110	Connects HARNESS ASSY TONER1 and HVPS/MCU
24	J-110	Connects HARNESS ASSY CHUTE and HVPS/MCU
26	I-110	Connects HARNESS ASSY LOW PAPER SNR and HVPS/MCU
27	D-111	Connects HARNESS ASSY LVPS and HVPS/MCU
28	K-110	Connects FFC ASSY ESS and HVPS/MCU
29	K-108	Connects HARNESS ASSY EXIT SNR1 and HVPS/MCU
30	K-107	Connects HARNESS ASSY OCT1 and HVPS/MCU
31	C-111	Connects GUIDE ASSY CRU and HVPS/MCU
40	X-121	Connects HARNESS ASSY LVPS and LVPS
41	X-122	Connects HARNESS ASSY LVPS and LVPS
42	W-122	Connects HARNESS ASSY LVPS and LVPS
43	X-122	Connects MAIN MOTOR and LVPS
44	X-123	Connects INTERLOCK SW REAR and LVPS
45	X-123	Connects INTERLOCK SW 24V and LVPS
46	X-120	Connects HARNESS ASSY FUSER and LVPS
47	U-126	Connects HARNESS ASSY FUSER and LVPS
48	U-125	Connects HARNESS ASSY 100V and LVPS
101	V-120	Connects LVPS and PWBA EXIT MOTOR
102	U-120	Connects HARNESS ASSY LVPS and PWBA EXIT MOTOR
103	S-119	Connects MOTOR ASSY EXIT and PWBA EXIT MOTOR
131	B-111	Connects ROS ASSY and HARNESS ASSY ROS

P/J	Coordinates	Remarks
140	A-108	Connects ROS ASSY and HARNESS ASSY ROS
141	R-119	Connects HARNESS ASSY LVPS and INTERLOCK SW 5V
150	M-121	Connects PWBA ASSY ANT and HARNESS ASSY ANT
160	A-108	Connects ROS ASSY and HARNESS ASSY ROS
170	A-107	Connects ROS ASSY and HARNESS ASSY ROS
180	A-109	Connects SIZE1 Tray and HARNESS ASSY LVPS
210	A-110	Connects SIZE2 Tray and HARNESS ASSY LVPS
220	R-127	Connects SENSOR TONER and HARNESS ASSY TONER1
221	M-124	Connects HARNESS ASSY TONER1 and HARNESS ASSY TONER2
240	M-122	Connects SENSOR NO PAPER and HARNESS ASSY TRAY1
241	O-126	Connects SENSOR REGI and HARNESS ASSY TRAY1
242	Q-126	Connects CLUTCH ASSY PH and HARNESS ASSY TRAY1
243	P-126	Connects CLUTCH REGI and HARNESS ASSY TRAY1
244	M-124	Connects FAN MAIN and HARNESS ASSY TRAY1
245	M-125	Connects HARNESS ASSY TRAY1 and HARNESS ASSY CHUTE
246	M-123	Connects SENSOR NO PAPER and HARNESS ASSY TRAY2
247	Q-126	Connects CLUTCH ASSY PH and HARNESS ASSY TRAY2
248	M-126	Connects HARNESS ASSY TRAY2 and HARNESS ASSY CHUTE
260	N-126	Connects SENSOR LOW PAPER and HARNESS ASSY LOW PAPER SNR
270	T-119	Connects FAN SUB and HARNESS ASSY LVPS
271	U-120	Connects HARNESS ASSY LVPS and MAIN MOTOR
290	M-120	Connects SENSOR FULL STACK and HARNESS ASSY EXIT SNR1
291	M-120	Connects SENSOR FACE UP OPEN and HARNESS ASSY EXIT SNR1
310	M-122	Connects EP CARTRIGE and GUIDE ASSY CRU
480	W-125	Connects HARNESS ASSY 100V and POWER SWITCH
1821	A-109	Connects GUIDE TRAY L ASSY and HARNESS ASSY LVPS
2083	H-111	Connects HARNESS ASSY FDR1 and HARNESS ASSY FDR2
2750	S-126	Connects HARNESS ASSY LVPS and HARNESS ASSY DUP
3070	M-121	Connects HARNESS ASSY OCT1 and HARNESS ASSY OCT2
4647	T-126	Connects HARNESS ASSY FUSER and FUSER ASSY

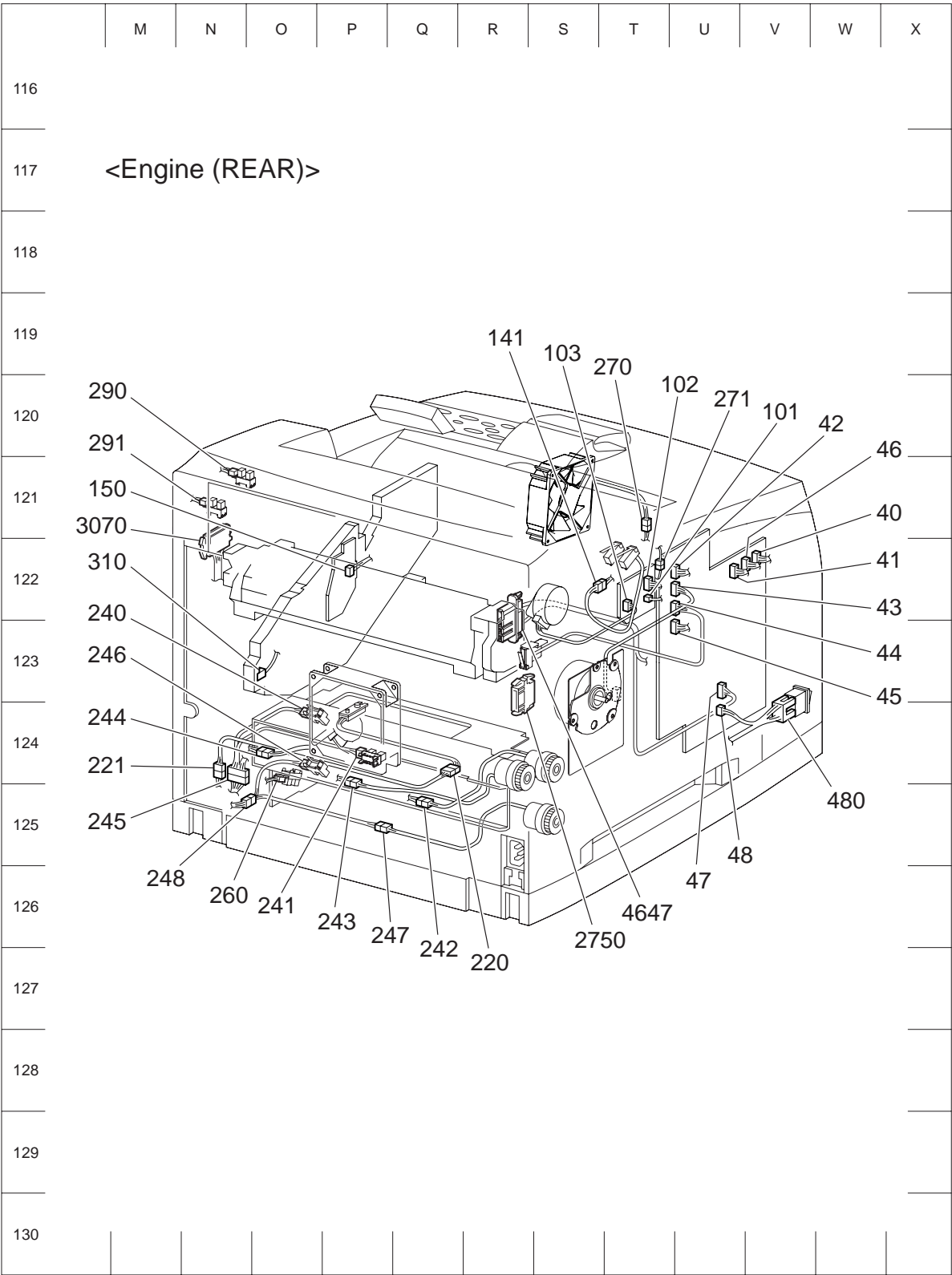
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1.2 Print Engine P/J Diagram (1 of 2)



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1.3 Print Engine P/J Diagram (2 of 2)



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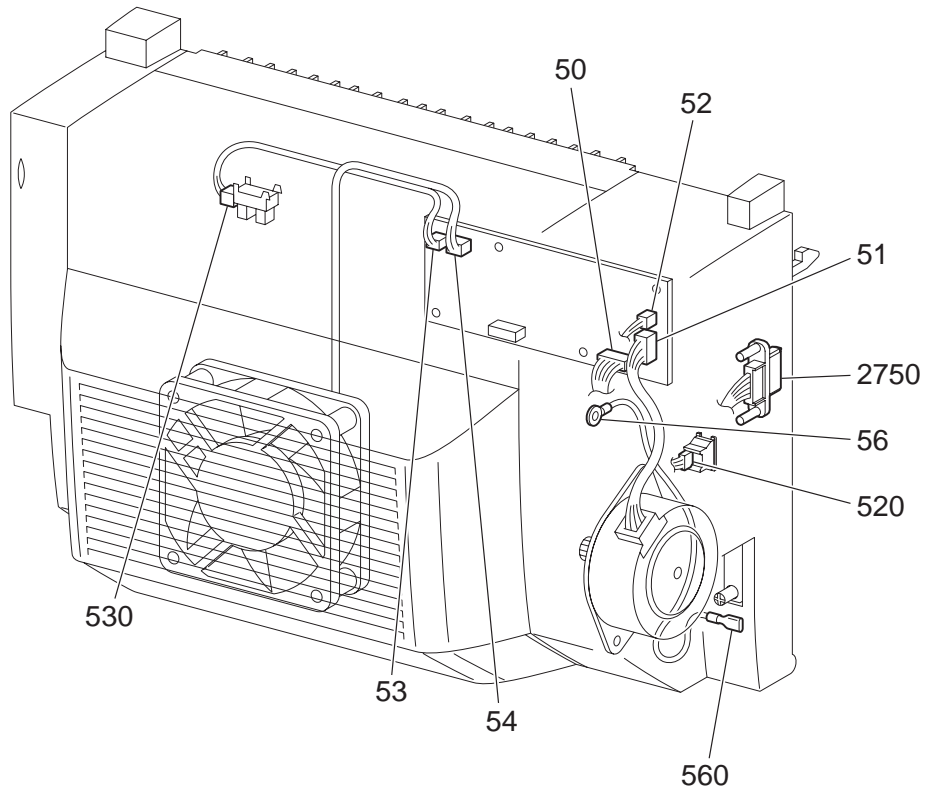
Duplex Transport Option

2. Connector [P (plug) / J (jack)]

2.1 List of P/J

P/J	Coordinates	Remarks
50	H-308	Connects HARNESS ASSY DUP and PWBA DUPLEX
51	H-308	Connects MOTOR DUPLEX and PWBA DUPLEX
52	H-308	Connects HARNESS ASSY DUP COVER and PWBA DUPLEX
53	F-307	Connects HARNESS ASSY DUP SNR and PWBA DUPLEX
54	F-307	Connects FAN DUPLEX and PWBA DUPLEX
56	H-309	Connects HARNESS ASSY DUP EARTH and PWBA DUPLEX
520	I-309	Connects SWITCH DUPLEX and HARNESS ASSY DUP
530	C-306	Connects SENSOR DUP and HARNESS ASSY DUP SNR
560	I-311	Connects HARNESS ASSY DUP EARTH and EARTH ASSY PLATE
2750	I-308	Connects HARNESS ASSY DUP and HARNESS ASSY LVPS

2.2 Duplex Transport Option P/J Diagram



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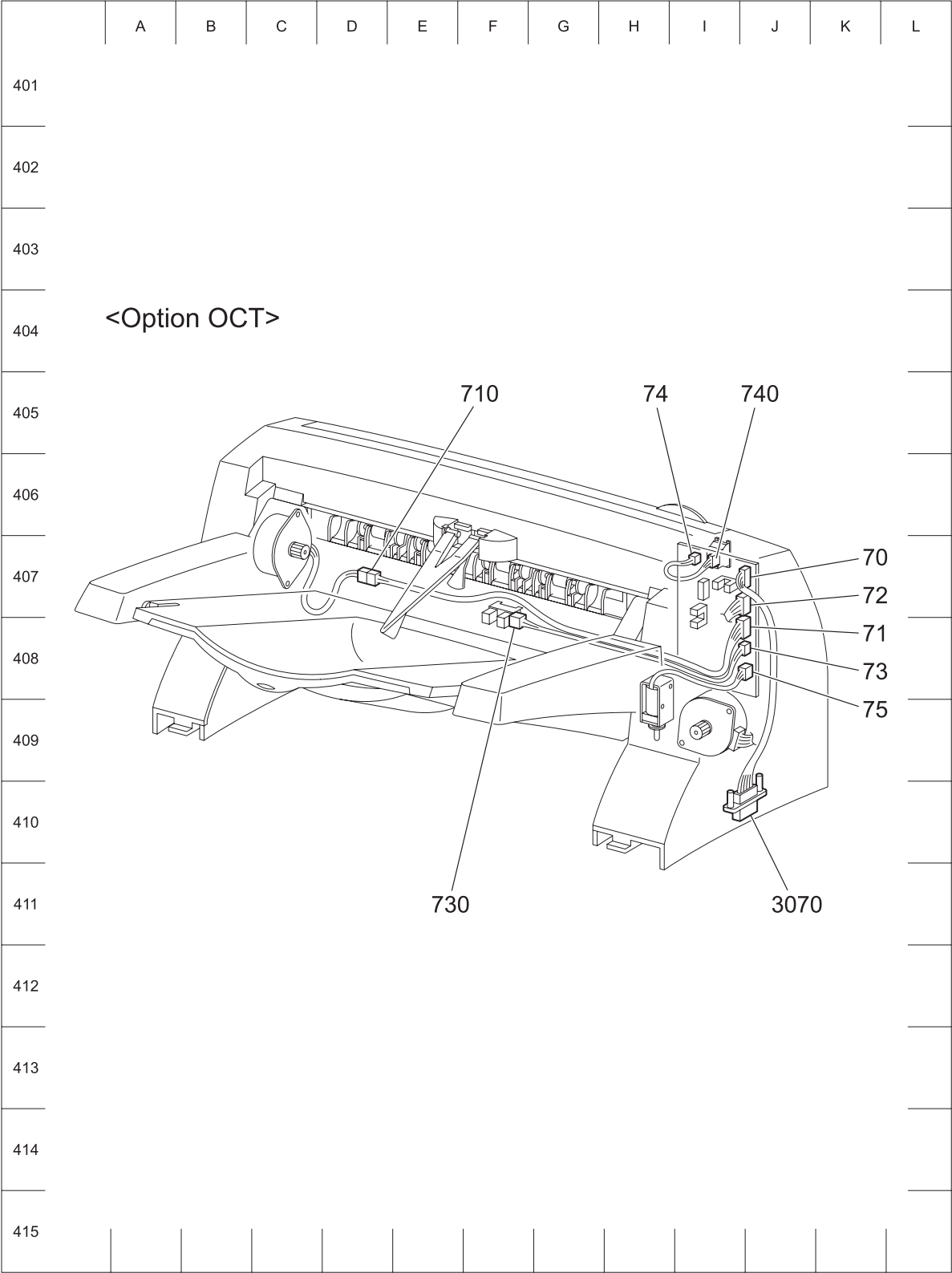
OCT Option

3. Connector [P (plug) / J (jack)]

3.1 List of P/J

P/J	Coordinates	Remarks
70	J-407	Connects HARNESS ASSY OCT2 and PWBA OCT
71	J-408	Connects MOTOR ASSY OCT and PWBA OCT
72	J-407	Connects MOTOR ASSY OFFSET and PWBA OCT
73	J-408	Connects HARNESS ASSY OCT SNR and PWBA OCT
74	I-407	Connects HARNESS ASSY REAR COVER and PWBA OCT
75	J-408	Connects SOLENOID ASSY GATE and PWBA OCT
710	F-405	Connects HARNESS ASSY OCT MOT and MOTOR ASSY OCT
730	F-408	Connects SENSOR OCT and HARNESS ASSY OCT SNR
740	I-407	Connects SWITCH REAR COVER and HARNESS ASSY REAR COVER
3070	J-410	Connects HARNESS ASSY OCT2 and HARNESS ASSY OCT1

3.2 OCT Option P/J Diagram



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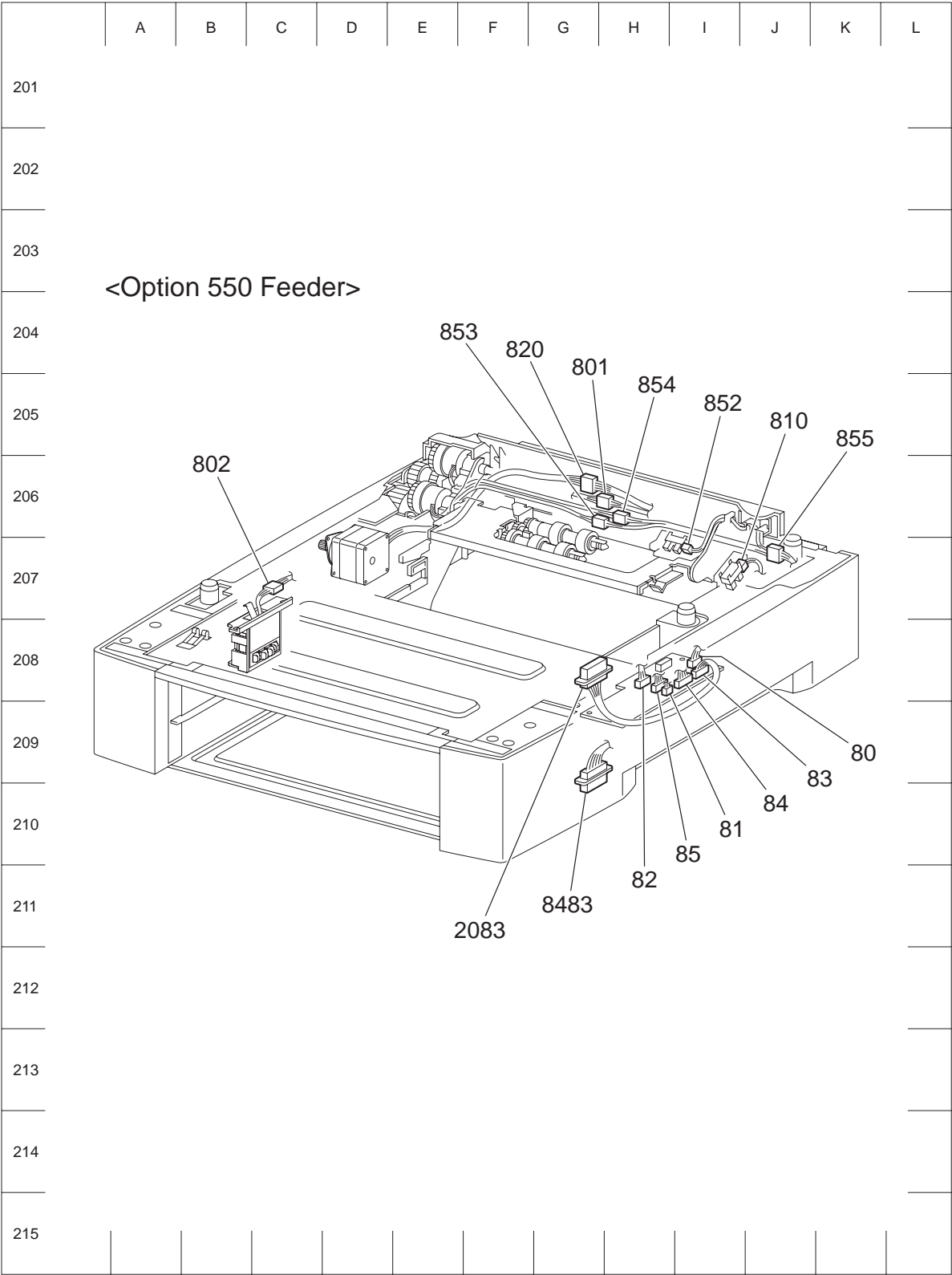
550 Sheet Feeder

4. Connector [P (plug) / J (jack)]

4.1 List of P/J

P/J	Coordinates	Remarks
80	I-208	Connects HARNESS ASSY SIZE FDR2 and PWBA FEEDER 550
81	H-208	Connects HARNESS LOW PAPER and PWBA FEEDER 550
82	H-208	Connects HARNESS ASSY FDR MOT and PWBA FEEDER 550
83	I-208	Connects HARNESS ASSY FDR2 and PWBA FEEDER 550
84	I-208	Connects HARNESS ASSY FDR5 and PWBA FEEDER 550
85	H-208	Connects HARNESS ASSY CLSNR2 and PWBA FEEDER 550
801	H-206	Connects HARNESS ASSY SIZE FDR1 and HARNESS ASSY SIZE FDR2
802	C-207	Connects HARNESS ASSY SIZE FDR1 and OPT ASSY SIZE
810	J-207	Connects SENSOR LOW PAPER and HARNESS LOW PAPER
820	G-206	Connects MOTOR FEEDER and HARNESS ASSY FDR MOT
852	I-207	Connects SENSOR NO PAPER and HARNESS ASSY CLSNR1
853	G-206	Connects CLUTCH ASSY PH and HANESS ASSY CLSNR1
854	H-206	Connects CLUTCH ASSY PR-REGI and HARNESS ASSY CLSNR1
855	J-207	Connects HARNESS ASSY CLSNR1 and HARNESS ASSY CLSNR2
2083	G-208	Connects HARNESS ASSY FDR1 and HARNESS ASSY FDR2
8483	G-209	Connects HARNESS ASSY FDR5 and HARNESS ASSY FDR5

4.2 550 Sheet Feeder P/J Diagram



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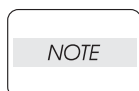
Chapter 5 Parts List

Engine

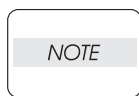
Parts List

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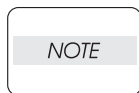
- ◆ The Item Numbers in the illustrations have the corresponding Item Numbers in the list.
- ◆ The notation of PL "X.Y.Z" is composed of the plate (PL), item "X.Y", and parts "Z".
- ◆ The alphabet characters in the illustrations represent screws and clips as follows:
"S": screw, "E": E-ring, "KL": KL clip, "C": C-ring, and "N": nut
- ◆ "▼" mark in the illustrations are attached to items indicating assembly parts in the illustrations.
- ◆ Encircled alphabetical figures in the illustrations indicate interrupted leader lines. Same characters in the illustrations represent lines to be connected.
- ◆ The mark "(with 2-5)" attached to assembly parts on the illustrations and lists represents that the items "2, 3, 4, and 5" of that plate are contained and the mark "(with 2-5, PL6.1.1)" represent that the item "2, 3, 4, and 5" of that plate and the item "1" of the plate "6.1" are contained.
- ◆ The mark "[Same PLX.Y.Z]" attached to parts in the illustrations and lists represents that the parts is the same as the parts of the item "Z" of the plate "X.Y".
- ◆ The mark "★" attached to the item in the list represents "recommended spare parts" which can be usually supplied. (Supply of other parts shall be examined separately.)
- ◆ The mark "*" attached to parts in the list represents "Note" or "Reference" about that parts is contained in the same page.
- ◆ "HIGH ASSY" in the list represent the high level assembly containing a specific part/s.



For spare parts, refer to the "Spare parts list" which is issued separately.

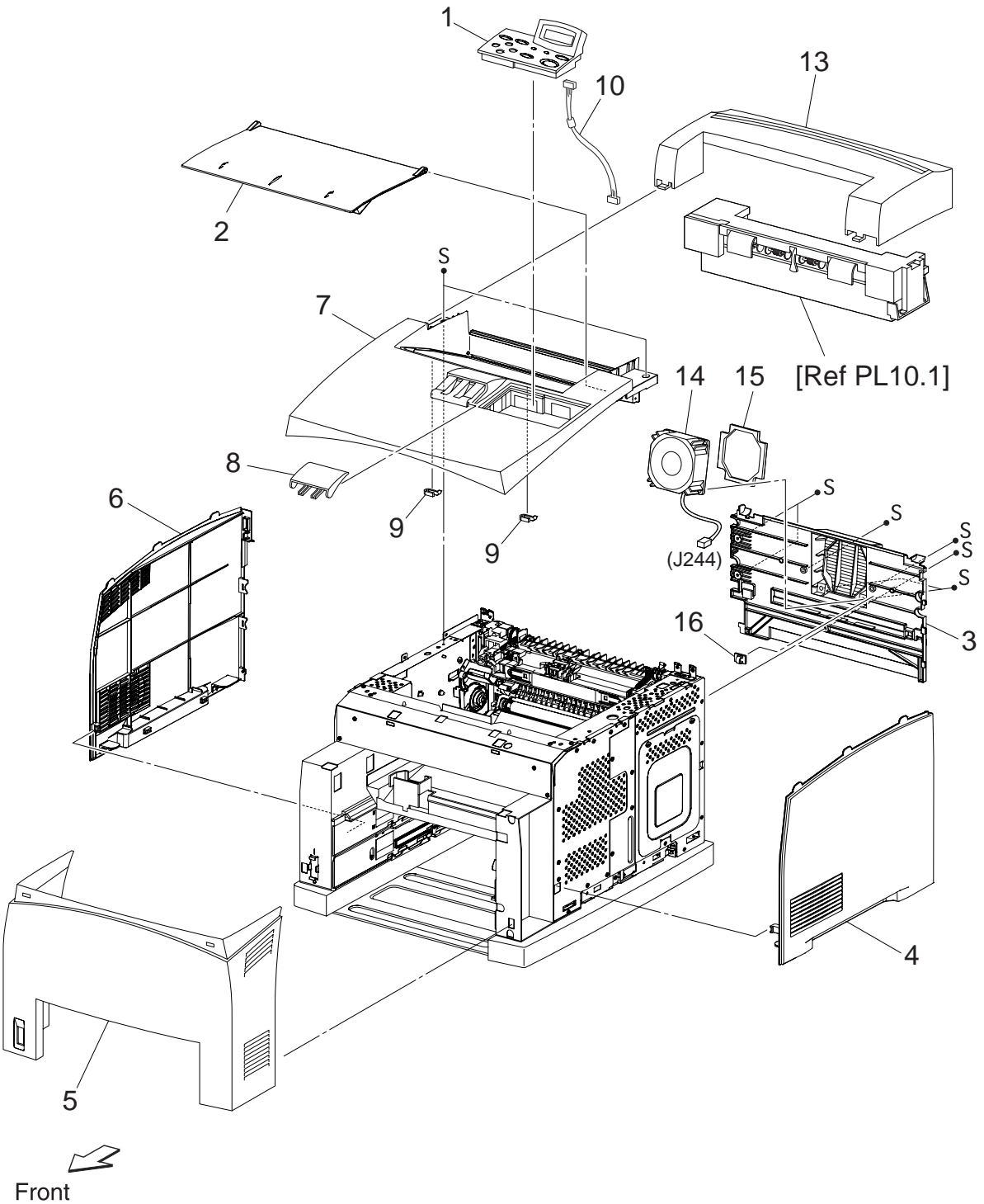


For the connector (P/J), parts such as harness, wire, etc. in the list, refer to "Chapter 7, Electric wiring"



It should be noted that configuration of parts may be different or some parts are not used depending on specifications of OEM.

PL 1.1 COVER [ILLUSTRATION]

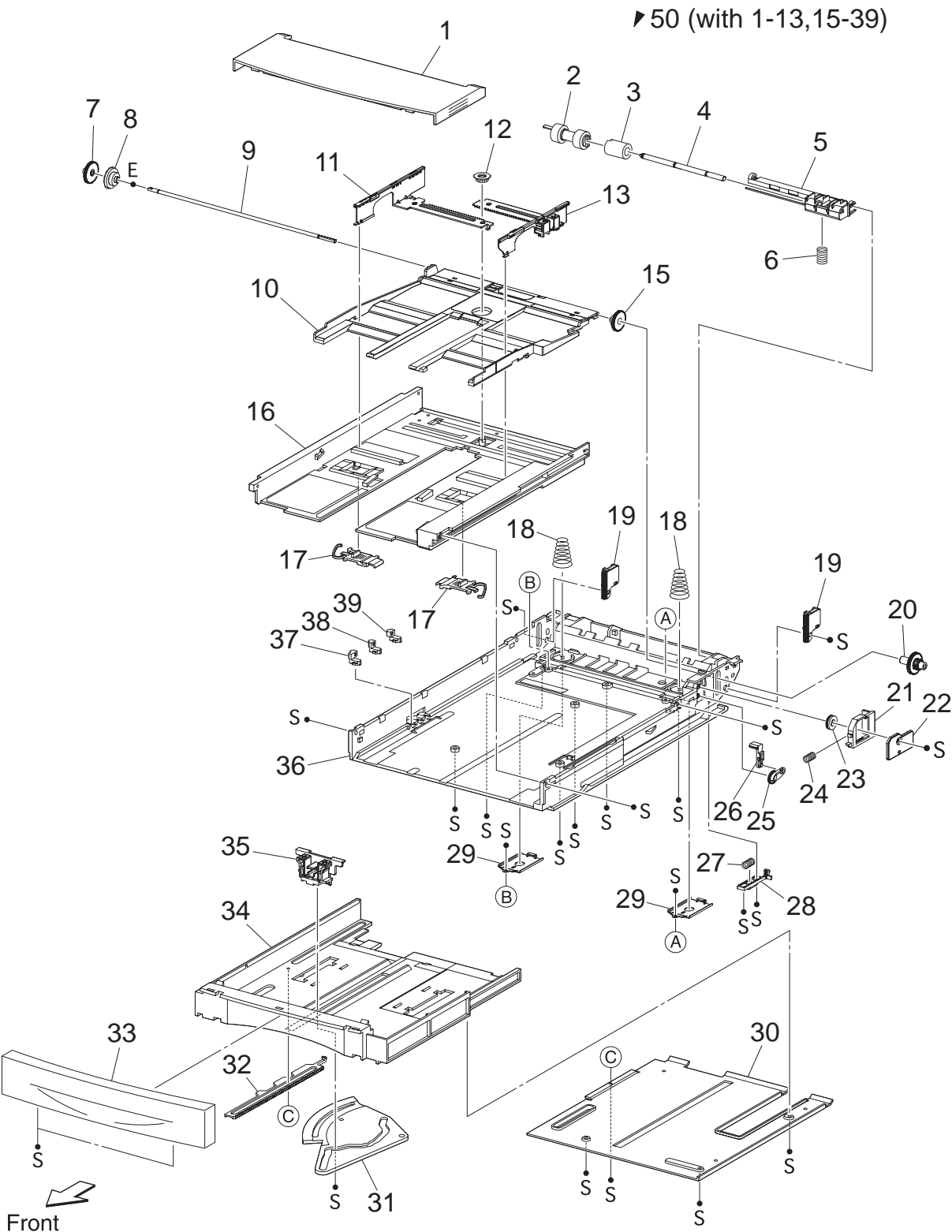


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PL 1.1 COVER [LIST]

Item	Parts name
1	OPERATION PANEL (P1)
2	COVER OPEN
3	COVER REAR
4	COVER RIGHT
5	COVER FRONT
6	COVER LEFT
7	COVER TOP
8	COVER STOPPER
9	STOPPER OPEN
10	HARNESS ASSY PANEL
11	--
12	--
13	COVER EXIT 500
14	FAN MAIN 80 (J244)
15	SEAL REAR FAN
16	CLAMP

PL 2.1 150 PAPER CASSETTE [ILLUSTRATION]



JG5002AA

PL 2.1 150 PAPER CASSETTE [LIST]

Item	Parts name
1	COVER CST
2	ROLL ASSY RETARD *1
3	FRICTION CLUTCH
4	SHAFT RETARD
5	HOLDER RETARD
6	SPRING RETARD
7	GEAR PB L
8	GEAR BTM DMP ONEWAY
9	SHAFT PB
10	PLATE ASSY BTM
11	GUIDE ASSY SD L150
12	GEAR PINION
13	GUIDE ASSY SD R150
14	--
15	GEAR BTM LOCK ONEWAY
16	HOUSING TOP 150
17	LOCK EXTENSION
18	SPRING BTM UP 150
19	PLATE GEAR LOCK 150
20	GEAR PB R
21	RACK BTM LOCK 150
22	COVER BTM UP
23	GEAR BTM LOCK PINION
24	SPRING BTM LOCK
25	GEAR LEVER LOCK
26	LEVER BTM LOCK
27	SPRING STOPPER GEAR
28	STOPPER GEAR
29	PLATE SUPPORT BASE
30	COVER EXTENSION
31	GEAR SECTOR
32	RACK SIZE
33	HANDLE EXTENSION 150
34	HOUSING EXTENSION 150
35	GUIDE ASSY END 150
36	HOUSING BASE 150
37	LINK SW SIZE1-150
38	LINK SW SIZE2-150
39	LINK SW SIZE3-150
40	--
41	--
42	--
50	150 PAPER CASSETTE (with 1-13,15-39)
51	--

*1: Periodical Replacement parts (per 200k print) 3 sets [1] of PL2.1.2, PL4.1.11, 44

This exploded view diagram illustrates the assembly of the IG5004AB door. The components are numbered 1 through 43, with some parts labeled with letters A, B, and C. The diagram shows the following parts and their assembly sequence:

- 1**: Top panel
- 2**: Bolt
- 3**: Washer
- 4**: Lock rod
- 5**: Lock cylinder
- 6**: Lock pin
- 7**: Bolt
- 8**: Washer
- 9**: Lock rod
- 10**: Lock rod
- 11**: Lock rod
- 12**: Lock rod
- 13**: Lock rod
- 14**: Lock rod
- 15**: Lock rod
- 16**: Lock rod
- 17**: Lock rod
- 18**: Lock rod
- 19**: Lock rod
- 20**: Lock rod
- 21**: Lock rod
- 22**: Lock rod
- 23**: Lock rod
- 24**: Lock rod
- 25**: Lock rod
- 26**: Lock rod
- 27**: Lock rod
- 28**: Lock rod
- 29**: Lock rod
- 30**: Lock rod
- 31**: Lock rod
- 32**: Lock rod
- 33**: Lock rod
- 34**: Lock rod
- 35**: Lock rod
- 36**: Lock rod
- 37**: Lock rod
- 38**: Lock rod
- 39**: Lock rod
- 40**: Lock rod
- 41**: Lock rod
- 42**: Lock rod
- 43**: Lock rod

The diagram also includes a "Front" arrow pointing to the left, indicating the orientation of the door assembly.

PL 3.1 550 PAPER CASSETTE [LIST]

Item	Parts name
Item	Parts name
1	COVER CST
2	ROLL ASSY RETARD *1
3	FRICTION CLUTCH
4	SHAFT RETARD
5	HOLDER RETARD
6	SPRING RETARD
7	GEAR PB L
8	GEAR BTM DMP ONEWAY
9	SHAFT PB
10	PLATE ASSY BTM
11	GUIDE ASSY SD L550
12	GEAR PINION
13	GUIDE ASSY SD R550
14	--
15	GEAR BTM LOCK ONEWAY
16	HOUSING TOP 550
17	LOCK EXTENSION
18	SPRING BTM UP 550
19	PLATE GEAR LOCK 550
20	GEAR PB R
21	RACK BTM LOCK 550
22	COVER BTM UP 550
23	GEAR BTM LOCK PINION
24	SPRING BTM LOCK
25	GEAR BTM LOCK
26	GEAR LEVER LOCK
27	LEVER BTM LOCK
28	SPRING STOPPER GEAR
29	STOPPER GEAR
30	PLATE SUPPORT
31	COVER EXTENSION
32	SUPPORT GUIDE IND
33	--
34	GUIDE INDICATOR 1
35	GUIDE INDICATOR 2
36	GUIDE INDICATOR 3
37	LOW INDICATOR
38	LOW IND FRONT
39	GEAR SECTOR
40	RACK SIZE
41	HANDLE EXTENSION 550
42	HOUSING EXTENSION 550
43	GUIDE ASSY END 550

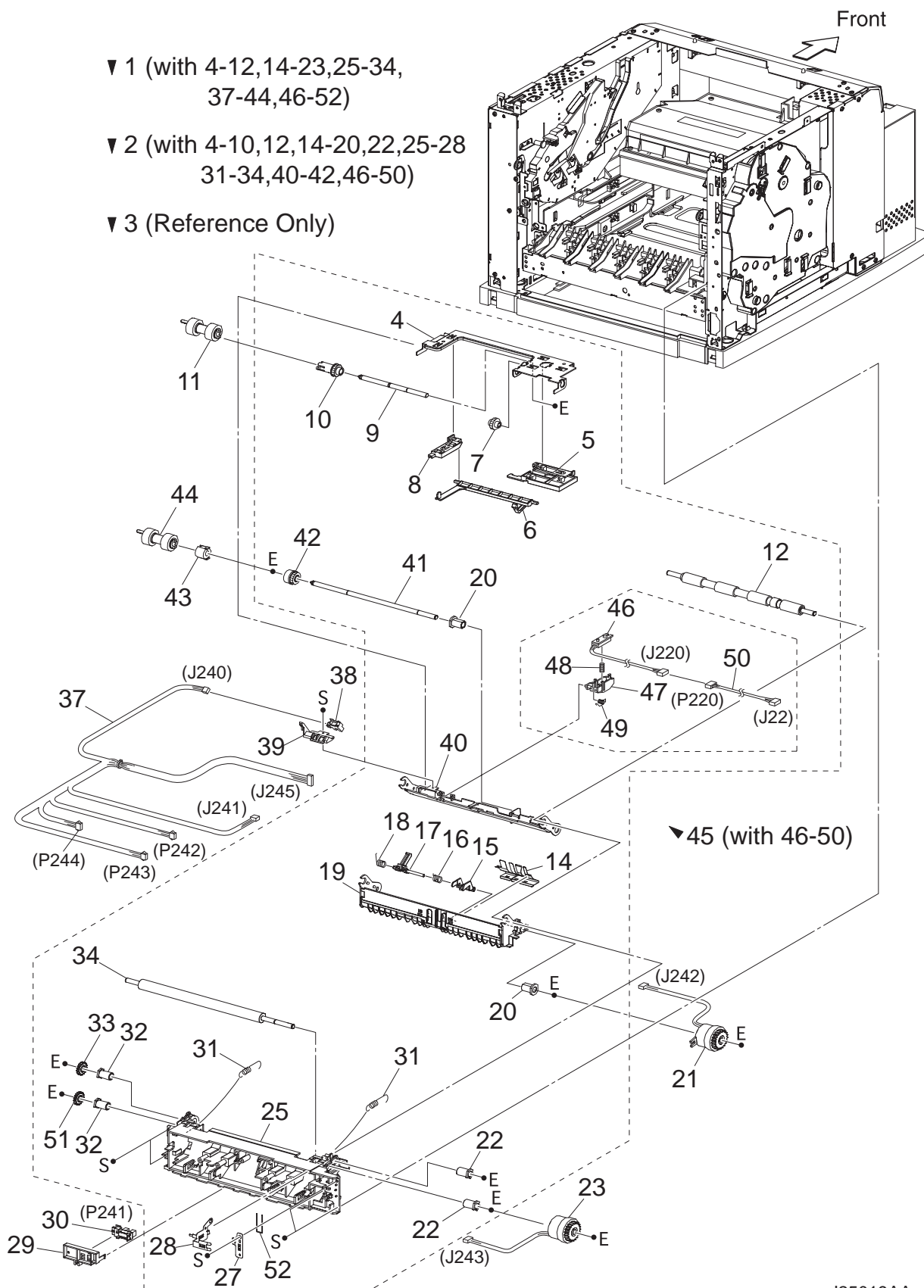
44	HOUSING BASE 550
45	LINK SW SIZE1-550
46	LINK SW SIZE2-550
47	LINK SW SIZE3-550
48	LINK SW SIZE LOW
49	--
50	550 PAPER CASSETTE (with 1-13,15-32,34-48,52,53)
51	--
52	STOPPER BASE R
53	STOPPER BASE L

*1: Periodical Replacement parts (per 200k print)

3sets [1] of PL3.1.2, PL5.1.19, 29

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PL 4.1 150 PAPER FEEDER [ILLUSTRATION]



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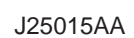
PL 4.1 150 PAPER FEEDER [LIST]

Item	Parts name
1	150 FEEDER ASSY (with 4-12,14-23,25-34,37-44,46-51)
2	FDR1 AS SUB 150 A4 (with 4-10,12,14-20,22,25-28,31-34,40-42,46-50)
3	CHUTE ASSY FDR1 (Reference Only) (with 4-10,14-20,40-42)
4	SUPPORT NUDGER
5	HOLDER LEFT
6	ACTUATOR NO PAPER
7	GEAR IDLER NUDGER
8	HOLDER RIGHT
9	SHAFT NUDGER
10	0 GEAR NUDGER
11	ROLL ASSY NUDGER *1
12	ROLL REGI RUBBER 45
13	--
14	COVER ACTUATOR-A4
15	ACTUATOR A
16	SPRING REGI SNR B
17	ACTUATOR B
18	SPRING REGI SNR A
19	CHUTE BTM ASSY
20	BEARING NUDGER
21	CLUTCH ASSY PH (J242)
22	BEARING REGI LEFT
23	REGI (J243)
25	CHUTE REGI 45
26	SPRING EARTH 45
27	EARTH PLATE BASE
28	EARTH PLATE MID
29	COVER SENSOR
30	SENSOR REGI (P241)
31	SPRING REGI
32	BEARING REGI RIGHT
33	GEAR REGI RUBBER BLACK
34	ROLL REGI METAL
35	--
36	--
37	HARNESS ASSY (J245-J240,J241,P242,P243,P244)
38	SENSOR NO PAPER (P240)
39	HOLDER NO PAPER SENSOR
40	CHUTE TOP ASSY
41	SHAFT FEED
42	CLUTCH ONEWAY NUDGER
43	CLUTCH ONEWAY FEED
44	ROLL ASSY FEED *1
45	SENSOR ASSY TONER (with 46-50)

46	SENSOR TONER (J220)
47	HOLDER-D
48	SPRING TONER
49	SPRING TONER BOX
50	HARNESS ASSY TONER 1 (J22-P220)
51	GEAR REGI METAL WHITE

*1: Periodical Replacement parts (per 200k print)
3sets [1] of PL4.1.11, 44, PL2.1.2

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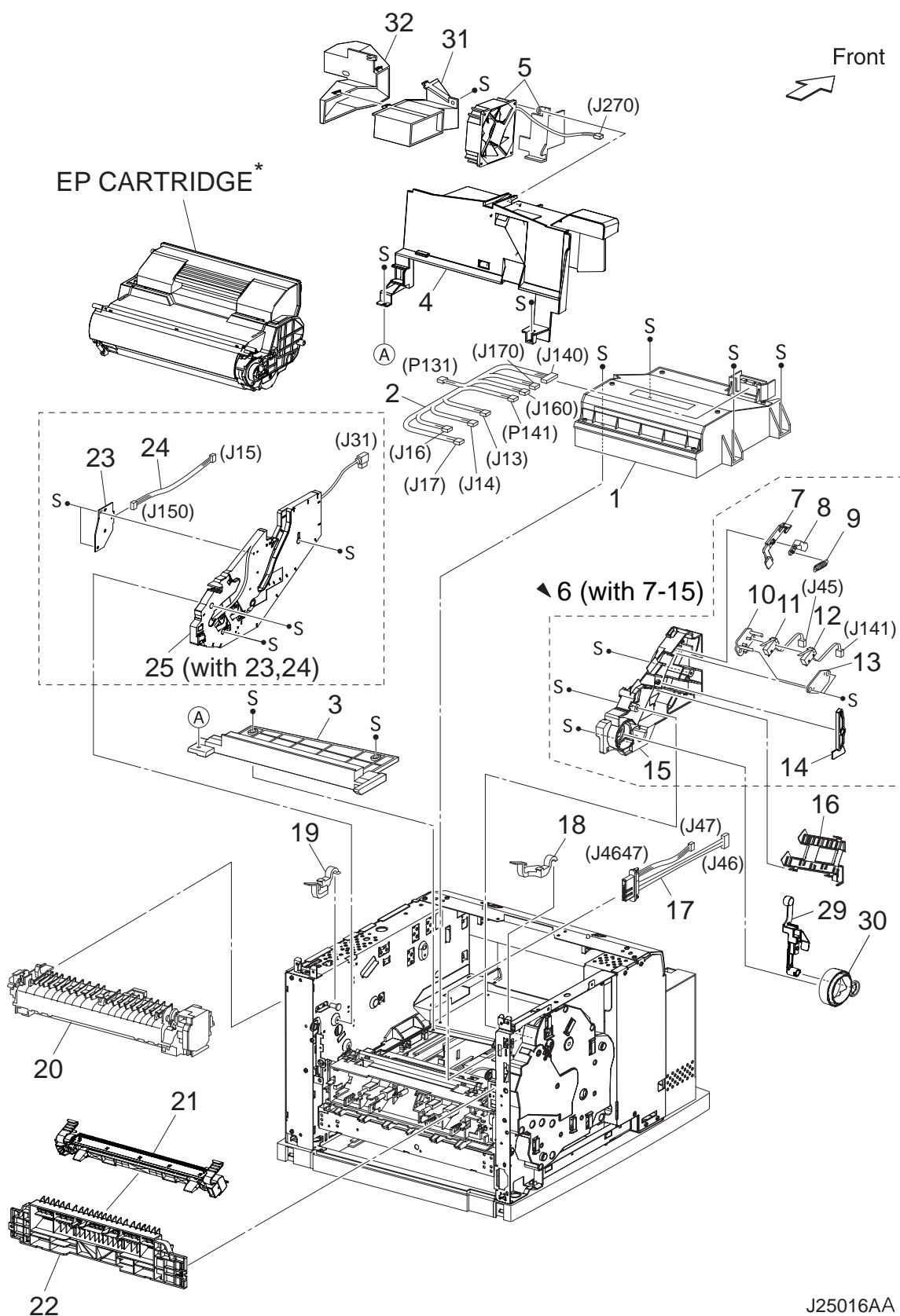


PL 5.1 550 PAPER FEEDER [LIST]

Item	Parts name
1	--
2	HARNESS ASSY LOW1 (J26-J260)
3	GUIDE TRAY RIGHT
4	SENSOR LOW PAPER (P260)
5	ACTUATOR LOW PAPER
6	PLATE CST LOCK
7	GUIDE TRAY LEFT (with 8,9)
8	COVER HARNESS SIZE
9	LOCK CST L
10	550 FEEDER ASSY (with 12-20,22-31,33-39)
11	--
12	SUPPORT NUDGER
	HOLDER LEFT
14	ACTUATOR NO PAPER
15	GEAR IDLER NUDGER
16	HOLDER RIGHT
17	SHAFT NUDGER
	GEAR NUDGER
19	ROLL ASSY NUDGER *1
20	CLUTCH ASSY PH (J247)
21	CHUTE ASSY FDR2 (Reference Only) (with 12-18,22-27)
22	BEARING NUDGER
23	COVER ACTUATOR
24	CHUTE BTM ASSY
25	CHUTE TOP ASSY
26	SHAFT FEED
27	CLUTCH ONEWAY NUDGER
28	CLUTCH ONEWAY FEED
29	ROLL ASSY FEED *1
30	HOLDER PIVOT LEFT
31	SPRING EARTH
32	CHUTE 550 LOWER
33	CHUTE OUT
34	HOLDER PIVOT RIGHT
35	PLATE TIE
36	HARNESS ASSY TRAY2 (J248-J246,P247)
37	HOLDER NO PAPER SENSOR
38	SENSOR NO PAPER (P246)
39	CLAMP-10V0
40	STOPPER TRAY R
41	STOPPER TRAY L

*1: Periodical Replacement parts (per 200k print)
 3sets [1] of PL5.1.19, 29, PL3.1.2

PL 6.1 XERO [ILLUSTRATION]



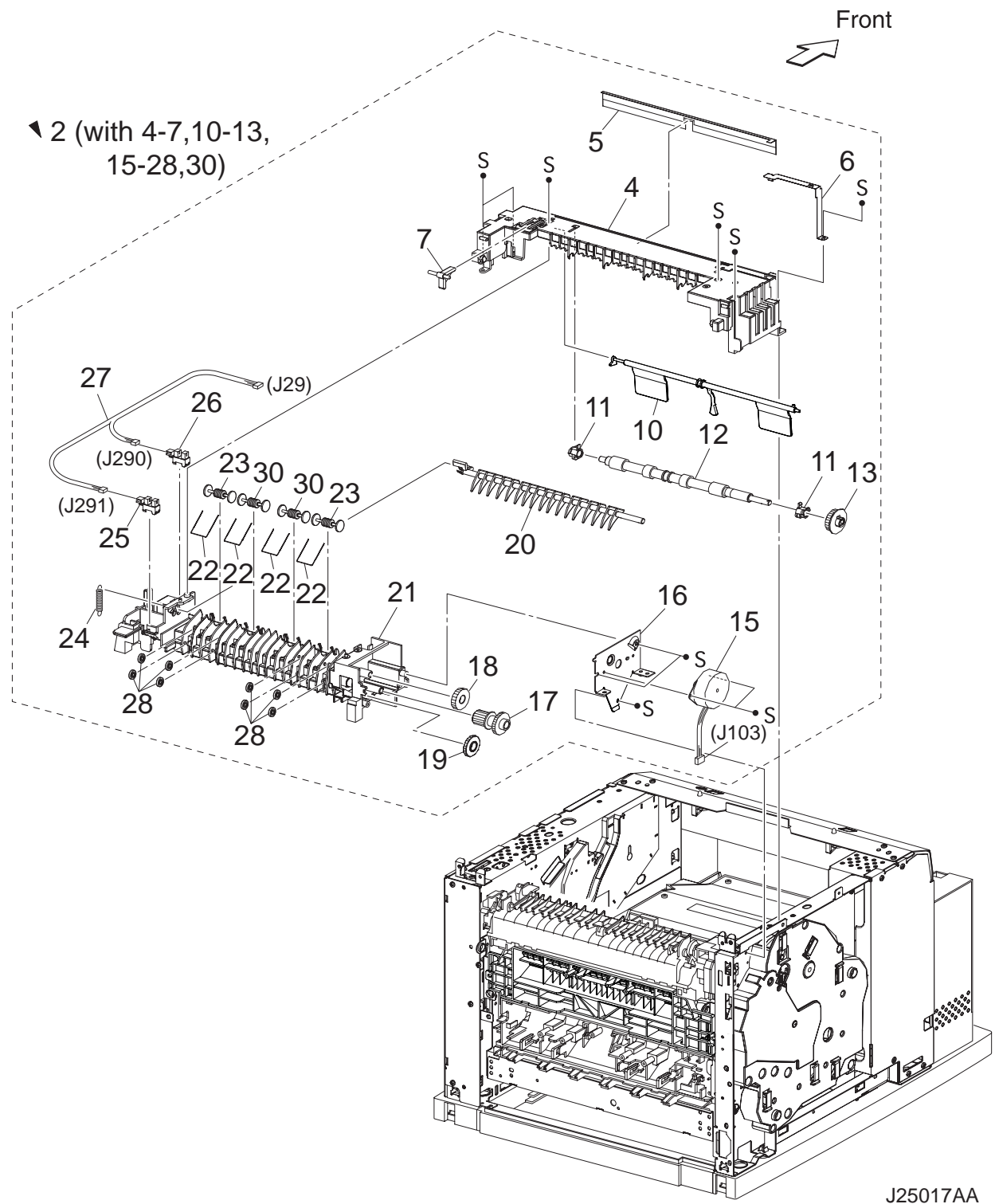
PL 6.1 XERO [LIST]

Item	Parts name
1	ROS ASSY 45-1200 (J131,P140,P160,P170)
2	HARNESS ASSY ROS (J13,J14,J16,J17-P131,J140,P141,J160,J170)
3	SHIELD PLATE ROS
4	DUCT FRONT
5	FAN SUB (J270)
6	GUIDE ASSY CRU L 45 (with 7-15)
7	GUIDE SL
8	SPACER SS
9	SPRING SL
10	HOLDER I/L SW1
11	HARNESS ASSY INTERLOCK1 (J45)
12	HARNESS ASSY INTERLOCK3 (J141)
13	HOLDER I/L SW2
14	LEVER GUIDE
15	GUIDE CRU LEFT
16	COVER GUIDE CRU
17	HARNESS ASSY FUSER (J4647-J46,J47)
18	LEVER FUSER LH
19	LEVER CRU FUSER RH J2
20	FUSER ASSY *1
21	HOUSING ASSY BTR J2 *2
22	CHUTE TRANSFER
23	PWBA ASSY ANT (P150)
24	HARNESS ASSY ANT (J15-J150)
25	GUIDE ASSY CRU R (J31) (with 23,24)
26	--
27	--
28	--
29	LEVER LINK
30	LINK GEAR 3
31	DUCT VACUUM L
32	DUCT VACUUM R

*1: Periodical Replacement parts (per 200k print)

*2: Periodical Replacement parts (per 200k print)

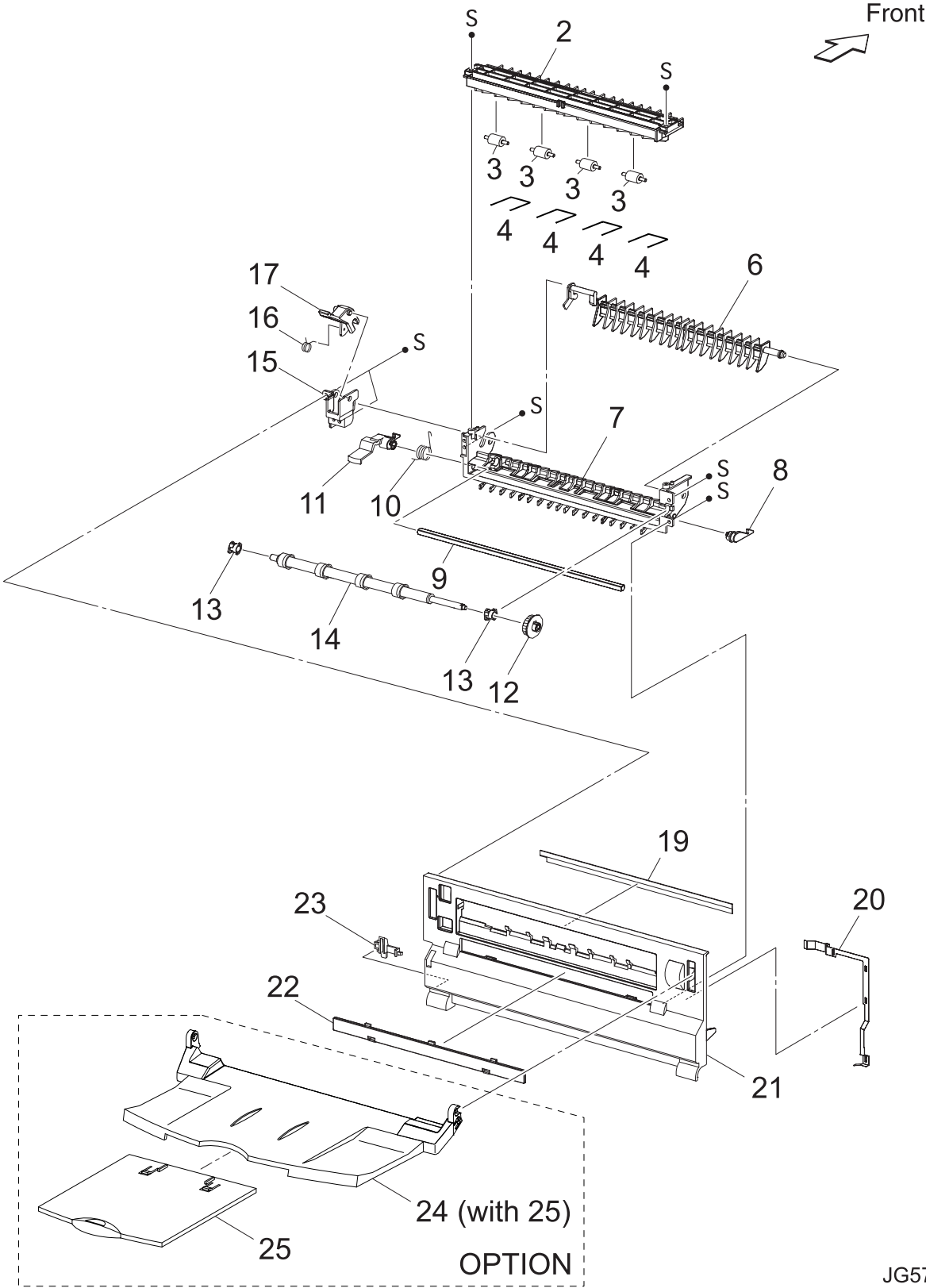
PL 7.1 500 PAPER EXIT (1/2) [ILLUSTRATION]



PL 7.1 500 PAPER EXIT (1/2) [LIST]

Item	Parts name
1	--
2	500 EXIT ASSY (with 4-7,10-13,15-28,30)
3	--
4	CHUTE UP EXIT
5	ELIMINATOR EXIT
6	EARTH PLATE EXIT
7	LINK GATE OCT
8	--
9	--
10	ACTUATOR FULL STACK
11	BEARING EXIT
12	ROLL EXIT
13	GEAR 21
14	--
15	MOTOR ASSY EXIT (J103)
16	BRACKET MOTOR EXIT
17	GEAR 16/49
18	GEAR 25-2
19	GEAR 25-1
20	GATE OCT EXIT
21	CHUTE LOW EXIT
22	SPRING PINCH EXIT
23	ROLL PINCH EXIT
24	SPRING GATE OCT
25	SENSOR FACE UP OPEN (P291)
26	SENSOR FULL STACK (P290)
27	HARNESS ASSY EXIT SNR (J29-J290,J291)
28	ROLL EXIT 500
29	--
30	ROLL PINCH EXIT OCT

PL 7.2 500 PAPER EXIT (2/2) & OPTION FACE UP TRAY [ILLUSTRATION]



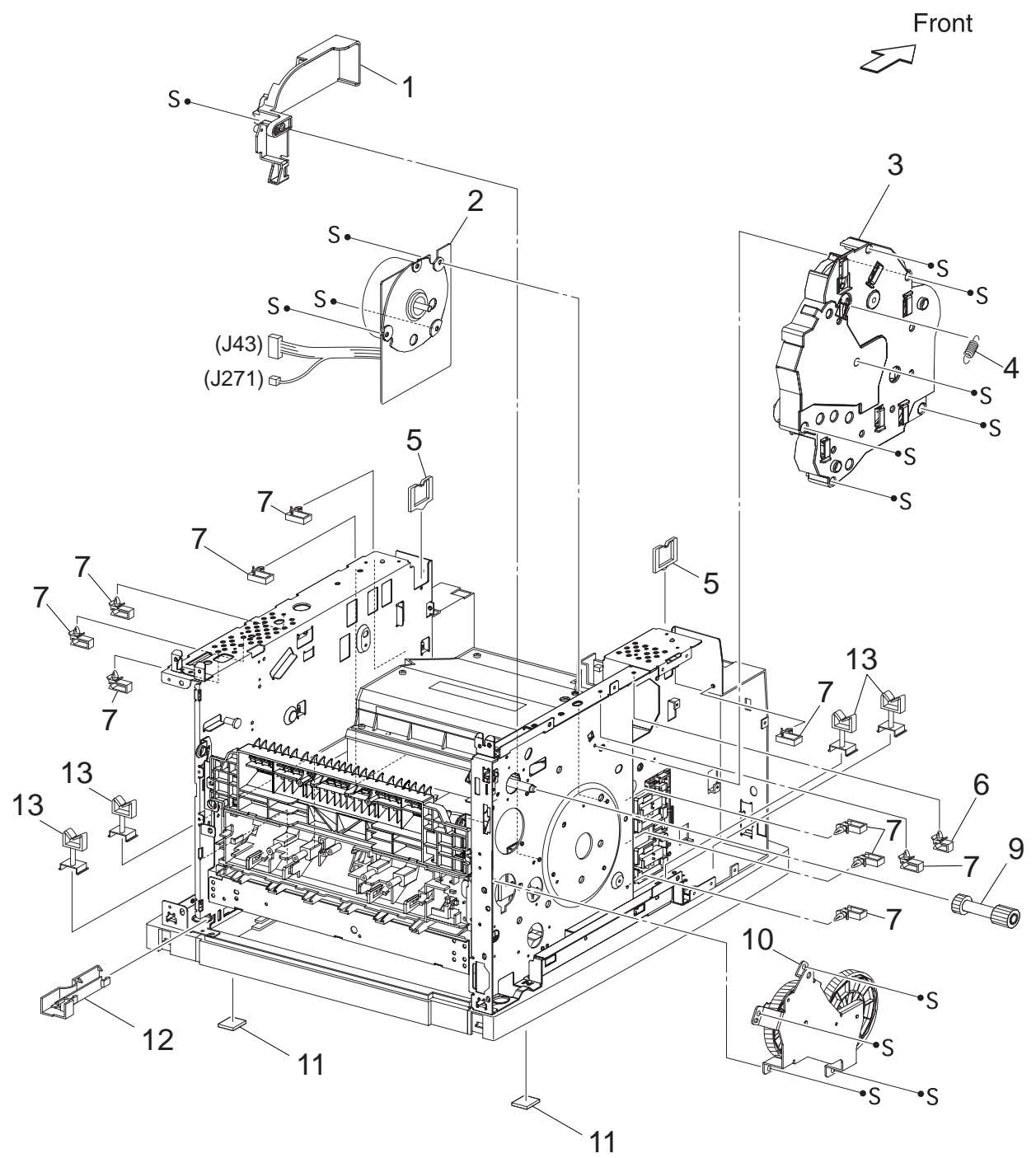
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PL 7.2 500 PAPER EXIT (2/2) & OPTION FACE UP TRAY [LIST]

Item	Parts name
1	--
2	CHUTE UP FU
3	ROLL PINCH FU
4	SPRING PINCH FU
5	--
6	GATE FU
7	CHUTE LOW FU
8	LEVER LATCH LEFT
9	PIPE LATCH FU
10	SPRING LATCH FU
11	LEVER LATCH RIGHT
12	GEAR 21
13	BEARING EXIT
14	ROLL FU
15	LEVER GATE HOLDER
16	SPRING LEVER GATE
17	LEVER GATE FU
18	--
19	ELIMINATOR EXIT FU
20	EARTH PLATE FU
21	COVER REAR 500
22	COVER DUP
23	STOPPER FSR
*24	TRAY FU A4 ASSY (with 25)
*25	TRAY FU SUB A4

*OPTION

PL 8.1 FRAME & DRIVE [ILLUSTRATION]

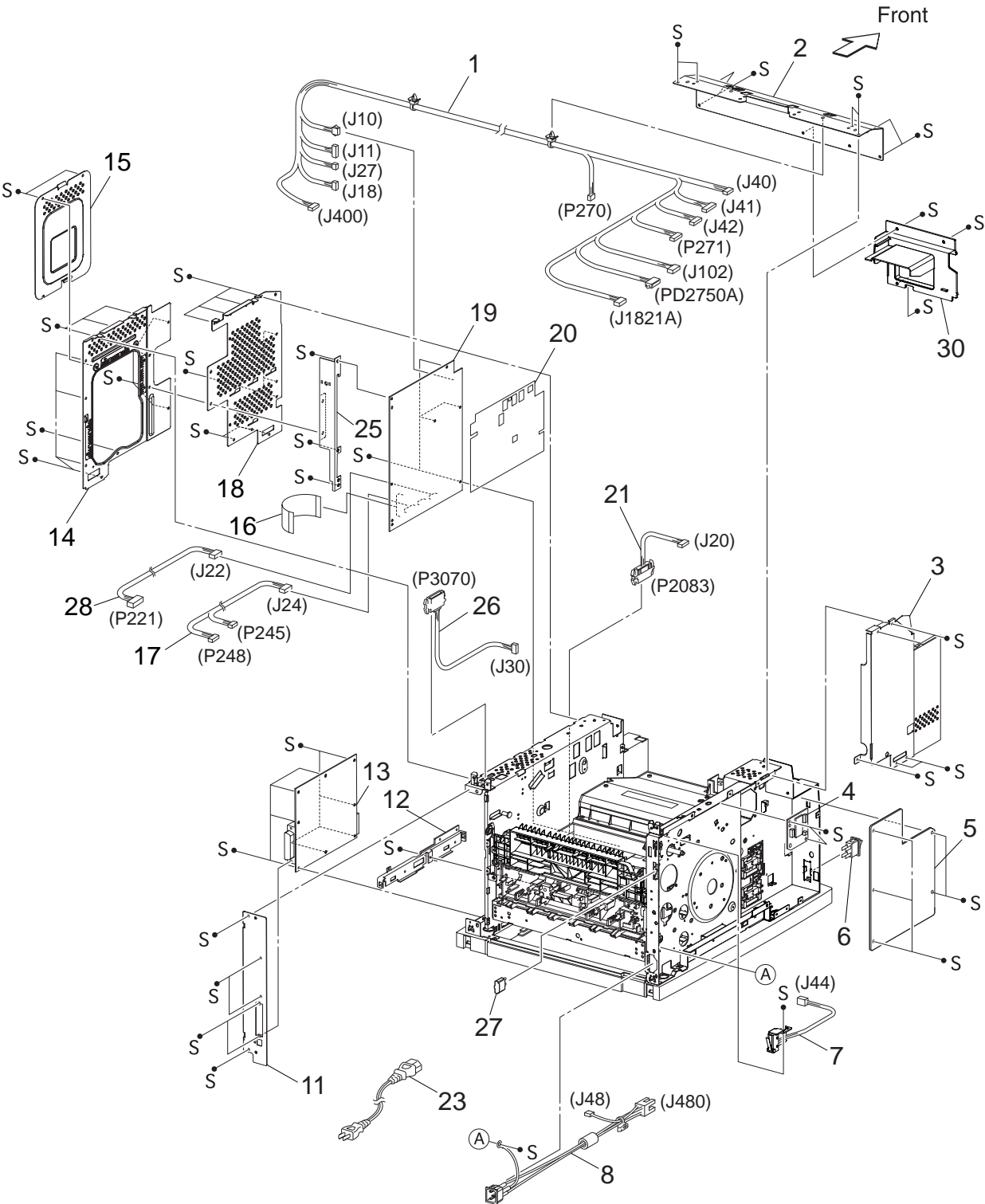


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PL 8.1 FRAME & DRIVE [LIST]

Item	Parts name
1	MOTOR COVER
2	MAIN MOTOR 45 (J43,J271)
3	GEAR ASSY HOUSING
4	SPRING RELEASE
5	CLAMP-EDGE
6	CLAMP-5V0
7	CLAMP-10V0
8	--
9	GEAR 9
10	GEAR ASSY PLATE
11	FOOT
12	GUIDE HARNESS R
13	CLAMP-RWSH
14	--
15	--
16	--

PL 9.1 ELECTRICAL [ILLUSTRATION]



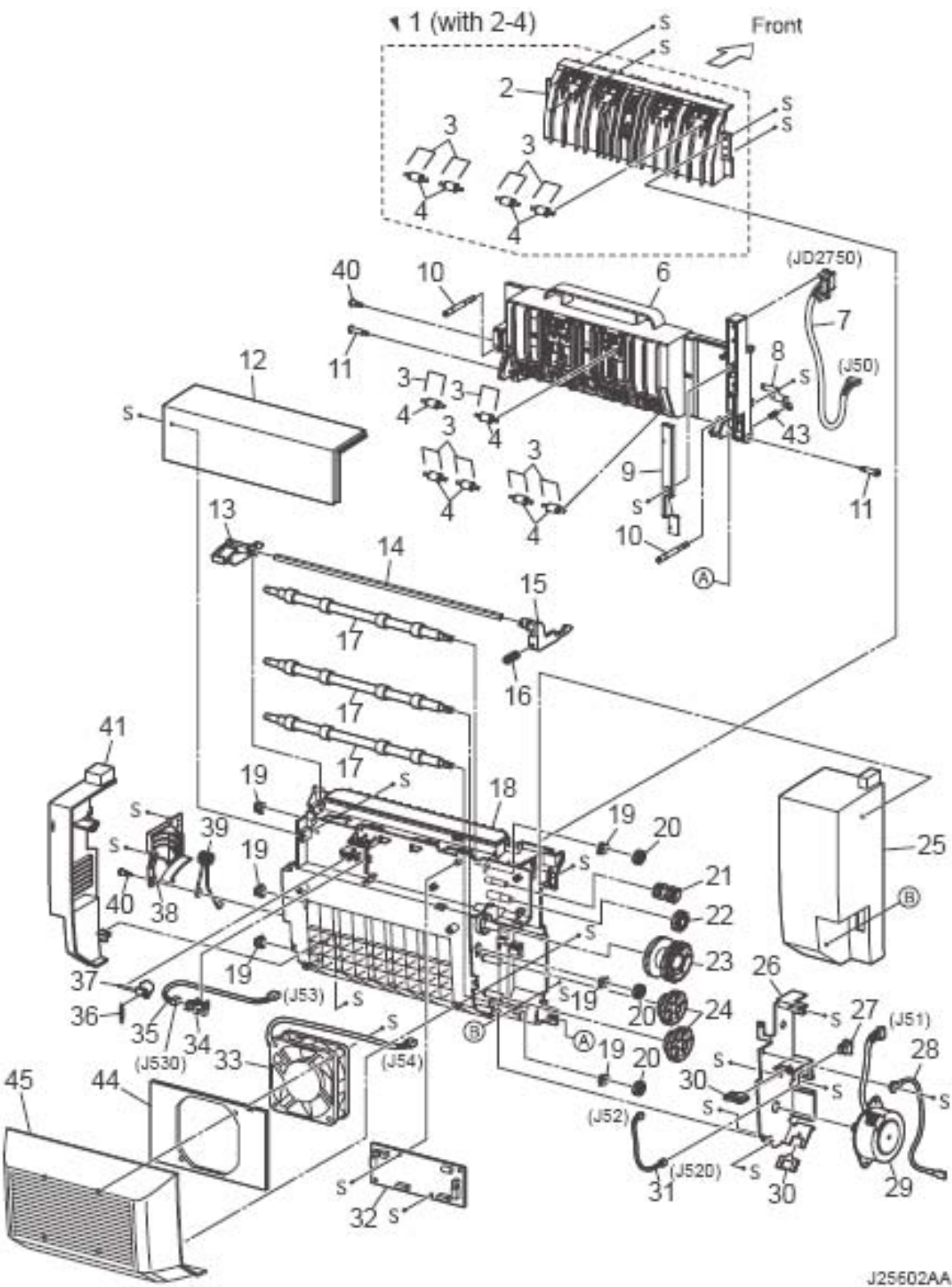
J25018AA

PL 9.1 ELECTRICAL [LIST]

Item	Parts name
1	HARNESS ASSY LVPS (J10,J11,J18,J27,J40,J41,J42,J102,P270,P271,J400,J1821A,PD2750A)
2	PLATE TIE FRONT
3	SHIELD PLATE LV J2
4	PWBA EXIT MOTOR
5	LVPS
6	POWER SWITCH
7	INTERLOCK S/W REAR (J44)
8	HARNESS ASSY AC IN (J48,J480)
9	--
10	--
11	PANEL REAR
12	BRACKET HANDLE R
13	PWBA ESS
14	SHIELD ASSY ESS
15	SHIELD ASSY WINDOW
16	FFC ASSY ESS (P28-CNVD)
17	HARNESS ASSY CHUTE (J24-P245,P248)
18	SHIELD PLATE HVPS
19	HVPS/MCU
20	MAYLER HVPS
21	HARNESS ASSY FDR1 (J20-P2083)
22	--
23	POWER CORD
24	--
25	BRACKET SHIELD HVPS
26	HARNESS ASSY OCT 1 (J30-P3070)
27	CAP CONNECTOR-DRAWER
28	HARNESS ASSY TONER 2 (J22-P221)
29	--
30	DUCT HIGH
31	--

OPTIONS

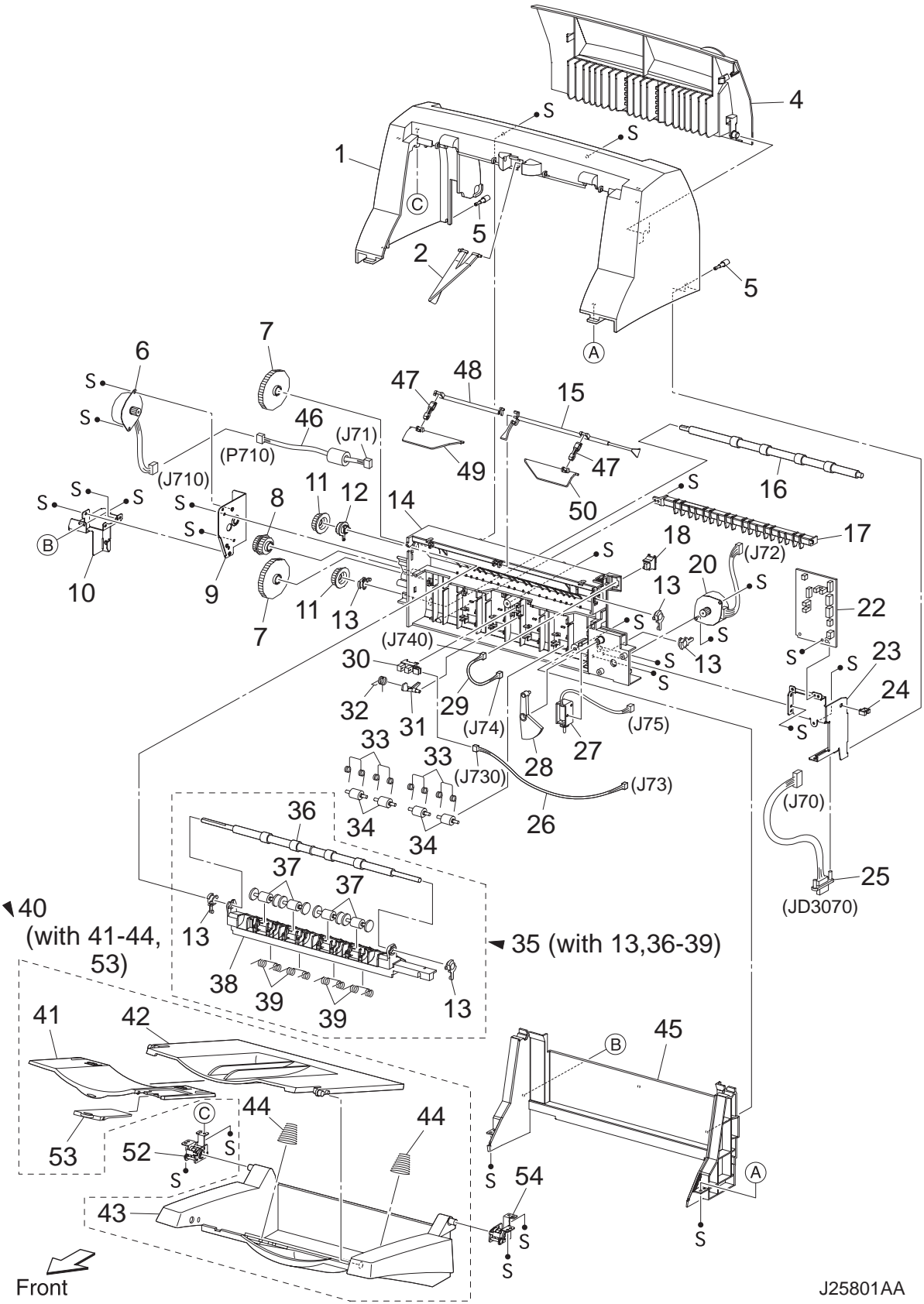
PL 10.1 OPTION DUPLEX [ILLUSTRATION]



PL 10.1 OPTION DUPLEX [LIST]

Item	Parts name
1	HSG UPPER ASSY (with 2-4)
2	HSG UPPER DUP
3	SPRING PINCH
4	ROLL PINCH
5	- -
6	HSG LOWER DUP
7	HARNESS ASSY DUP (J50-JD2750)
8	EARTH ASSY PLATE
9	COVER HARNESS
10	SCREW THUMB
11	SCREW HINGE
12	COVER TOP
13	LEVER LATCH RIGHT
14	SHAFT LATCH
15	LEVER LATCH LEFT
16	SPRING LATCH
17	ROLL DUP
18	COVER HSG DUP
19	BEARING DUP
20	GEAR ROLL
21	GEAR IDLE29
22	GEAR IDLE47
23	GEAR IDLE77
24	GEAR IDLE57/37
25	COVER LEFT
26	BRACKET MOTOR
27	SWITCH DUPLEX (P520)
28	HARNESS ASSY DUP EARTH (J56-JD560)
29	MOTOR DUPLEX (J51)
30	CLAMP-EDGE
31	HARNESS ASSY DUP COVER (J52-J520)
32	PWBA DUPLEX
33	FAN DUP J2 (J54)
34	SENSOR DUP (P530)
35	HARNESS ASSY DUP SNR (J53-J530)
36	SPRING ACTUATOR
37	ACTUATOR DUP
38	COVER DAMPER
39	SPRING DAMPER
40	SCREW TAPPING
41	COVER RIGHT
42	- -
43	SPRING FG DUP
44	PLATE FAN DUP
45	COVER REAR DUP

PL 11.1 OPTION OCT [ILLUSTRATION]



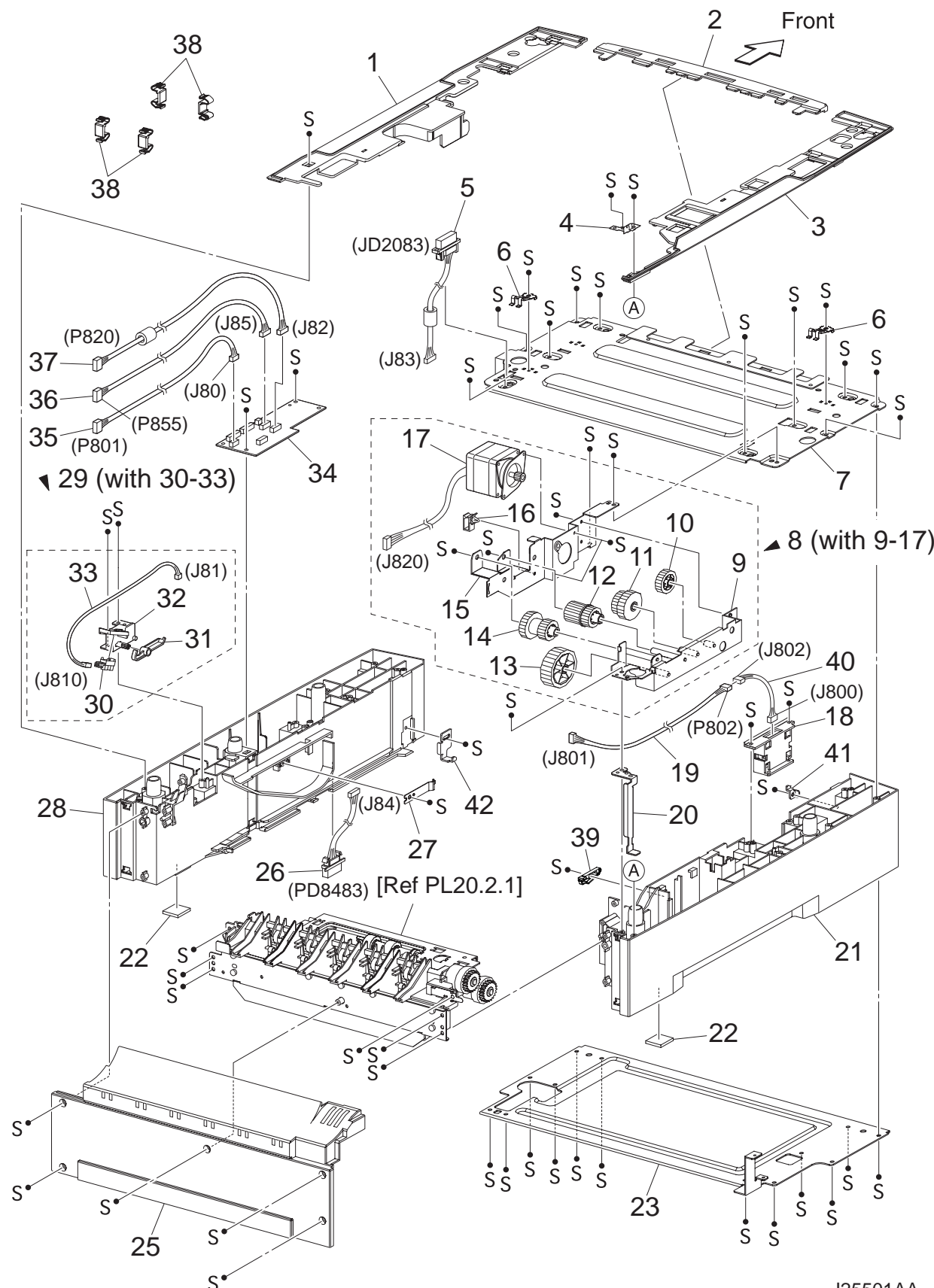
PL 11.1 OPTION OCT [LIST]

Item	Parts name
1	COVER OCT
2	WEIGHT
3	--
4	COVER REAR
5	SCREW THUMB
6	MOTOR ASSY OCT (J710)
7	GEAR 45
8	GEAR 19/37
9	BRACKET MOTOR OCT
10	SUPPORT OCT LEFT
11	GEAR 19
12	BEARING OFFSET
13	BEARING ROLL
14	HOUSING OCT
15	ACTUATOR FULL STACK
16	ROLL OCT LOWER
17	CHUTE INLET
18	S/W REAR COVER (P740)
19	--
20	MOTOR ASSY OFFSET (J72)
21	--
22	PWBA OCT
23	SUPPORT OCT RIGHT
24	CLAMP MINI
25	HARNESS ASSY OCT 2 (J70-JD3070)
26	HARNESS ASSY OCT SNR (J73-J730)
27	SOLENOID ASSY GATE (J75)
28	GEAR CAM
29	HARNESS ASSY REAR COVER (J74-J740)
30	SENSOR OCT (P730)
31	ACTUATOR OCT
32	SPRING ACTUATOR
33	SPRING PINCH
34	ROLL PINCH
35	CHUTE OFFSET ASSY (with 13,36-39)
36	ROLL OCT UPPER
37	ROLL PINCH OCT
38	CHUTE OFFSET
39	SPRING PINCH EXIT
40	TRAY ASSY OCT (with 41-44,53)
41	TRAY EXTENSION
42	TRAY EXIT
43	TRAY BASE
44	SPRING TRAY

45	COVER FRONT
46	HARNESS ASSY OCT MOT (J71-P710)
47	LINK
48	SHAFT FULLSTACK
49	FLAPPER L
50	FLAPPER R
51	- -
52	DAMPER ASSY TRAY L
53	STOPPER
54	DAMPER ASSY TRAY R

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PL 12.1 OPTION 550 PAPER FEEDER (1/2) [ILLUSTRATION]

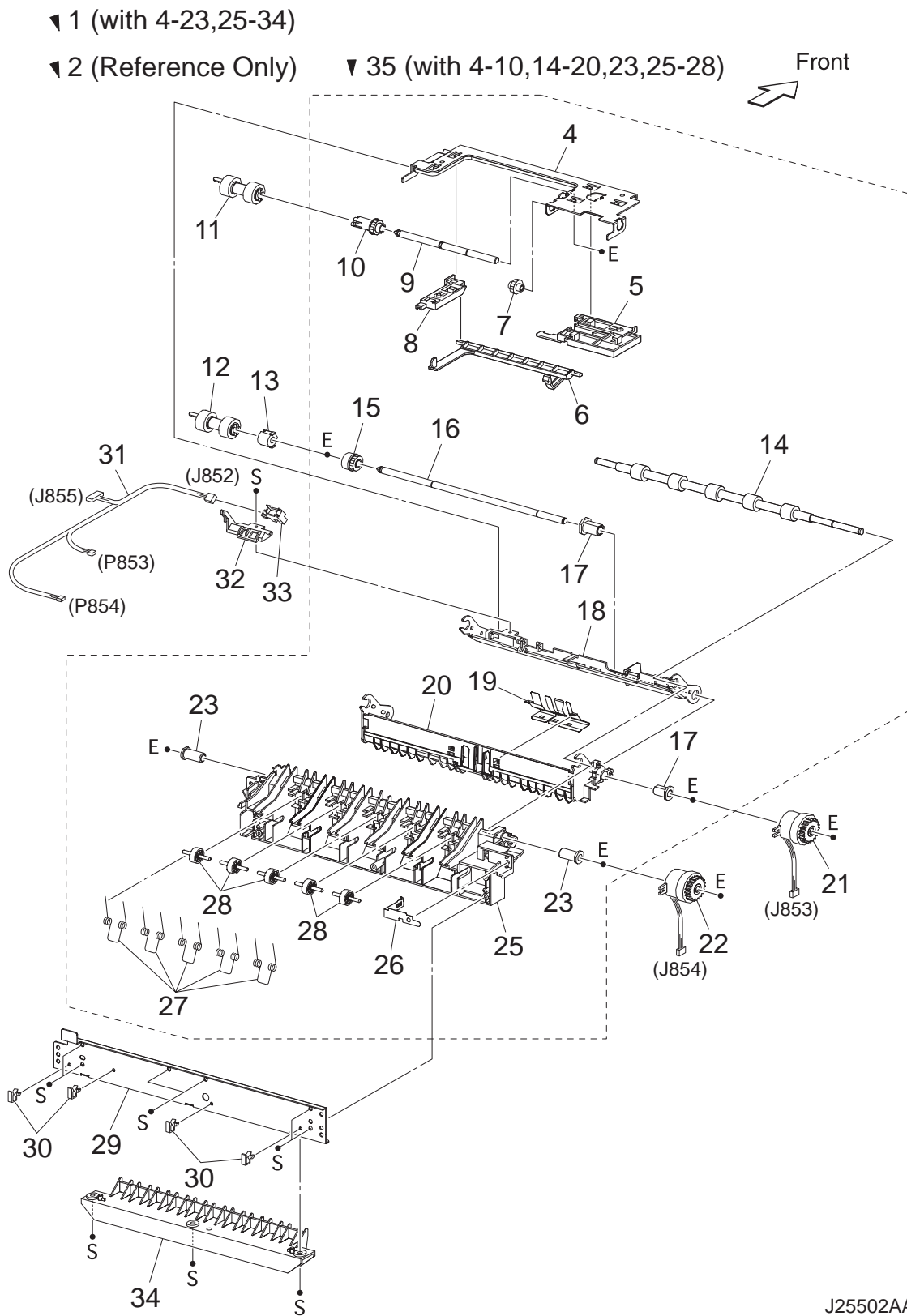


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PL 12.1 OPTION 550 PAPER FEEDER (1/2) [LIST]

Item	Parts name
1	COVER RIGHT PLATE
2	COVER FRONT
3	COVER LEFT PLATE
4	EARTH PLATE
5	HARNESS ASSY FDR2 (J83-JD2083)
6	SPRING EARTH TOP
7	FRAME TOP ASSY
8	DRIVE ASSY OPT FDR 45 (with 9-17)
9	BRACKET ASSY FDR DRV 45
10	GEAR OPT FDR2
11	GEAR OPT FDR3
12	GEAR OPT FDR4
13	GEAR OPT FDR5
14	GEAR OPT FDR6
15	PLATE OPT FDR DRV 45
16	CLAMP-5V0
17	MOTOR ASSY OPT FDR 45 (J820)
18	OPT ASSY SIZE (J800)
19	HARNESS ASSY SIZE FDR1 (P802-J801)
20	PLATE EARTH 550
21	FRAME CVR L550
22	FOOT
23	FRAME BASE FRONT
24	--
25	COVER RE550
26	HARNESS ASSY FDR5 (J84-PD8483)
27	PLATE CST LOCK
28	FRAME CVR R550
29	HLD LOW PAPER ASSY (with 30-33)
30	SENSOR LOW PAPER (P810)
31	ACTUATOR LOW PAPER
32	HOLDER LOW PAPER
33	HARNESS LOW PAPER (J81-J810)
34	PWBA FEEDER 550
35	HARNESS ASSY SIZE FDR2 (J80-J801)
36	HARNESS ASSY CLSNR2 (J85-P855)
37	HARNESS ASSY FDR MOT (J82-P820)
38	JOINT FEEDER
39	LOCK CST L
40	HARNESS ASSY SIZE FDR3 (J802-J800)
41	STOPPER TRAY L
42	STOPPER TRAY R

PL 12.2 OPTION 550 PAPER FEEDER (2/2) [ILLUSTRATION]



J25502AA

PL 12.2 OPTION 550 PAPER FEEDER (2/2) [LIST]

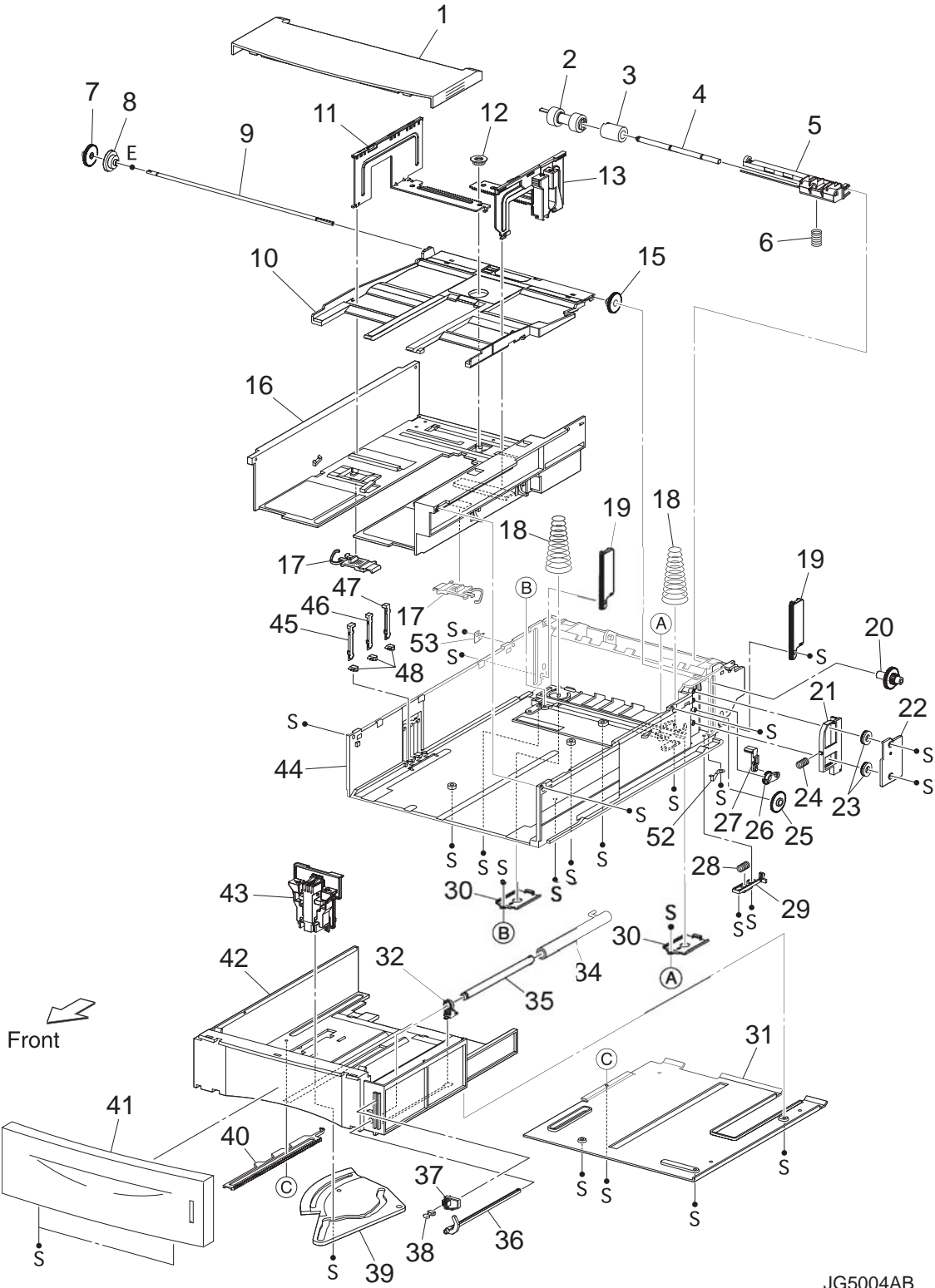
Item	Parts name
1	550 FEEDER OPTION (with 4-23,25-34)
2	CHUTE ASSY FDR2 (Reference Only) (with 4-10,15-20)
3	--
4	SUPPORT NUDGER
5	HOLDER LEFT
6	ACTUATOR NO PAPER
7	GEAR IDLER NUDGER
8	HOLDER RIGHT
9	SHAFT NUDGER
10	GEAR NUDGER
11	ROLL ASSY NUDGER *1
12	ROLL ASSY FEED *1
13	CLUTCH ONEWAY FEED
14	ROLL ASSY TURN
15	CLUTCH ONEWAY NUDGER
16	SHAFT FEED
17	BEARING NUDGER
18	CHUTE TOP ASSY
19	COVER ACTUATOR
20	CHUTE BTM ASSY
21	CLUTCH ASSY PH (J853)
22	CLUTCH PR-REGI (J854)
23	BEARING FEEDER
24	--
25	CHUTE OUT
26	SPRING EARTH
27	SPRING PINCH TURN
28	ROLL PINCH TURN
29	PLATE TIE
30	CLAMP-5V0
31	HARNESS ASSY CLSNR1 (J855-J852,P853,P854)
32	HOLDER NO PAPER SENSOR
33	SENSOR NO PAPER (P852)
34	CHUTE 550 LOWER
35	FDR3 AS SUB 550 A4 (with 4-10,14-20,23,25-28)

*1: Periodical Replacement parts (per 200k print)

3sets [1] of PL12.2.11,12,PL12.3.2

PL 12.3 OPTION 550 PAPER CASSETTE [ILLUSTRATION]

▼ 50 (with 1-13,15-32,34-48,52,53)



JG5004AB

PL 12.3 OPTION 550 PAPER CASSETTE [LIST]

Item	Parts name
1	COVER CST
2	ROLL ASSY RETARD *1
3	FRICTION CLUTCH
4	SHAFT RETARD
5	HOLDER RETARD
6	SPRING RETARD
7	GEAR PB L
8	GEAR BTM DMP ONEWAY
9	SHAFT PB
10	PLATE ASSY BTM
11	GUIDE ASSY SD L550
12	GEAR PINION
13	GUIDE ASSY SD R550
14	--
15	GEAR BTM LOCK ONEWAY
16	HOUSING TOP 550
17	LOCK EXTENSION
18	SPRING BTM UP 550
19	PLATE GEAR LOCK 550
20	GEAR PB R
21	RACK BTM LOCK 550
22	COVER BTM UP 550
23	GEAR BTM LOCK PINION
24	SPRING BTM LOCK
25	GEAR BTM LOCK
26	GEAR LEVER LOCK
27	LEVER BTM LOCK
28	SPRING STOPPER GEAR
29	STOPPER GEAR
30	PLATE SUPPORT
31	COVER EXTENSION
32	SUPPORT GUIDE IND
33	--
34	GUIDE INDICATOR 1
35	GUIDE INDICATOR 2
36	GUIDE INDICATOR 3
37	LOW INDICATOR
38	LOW IND FRONT
39	GEAR SECTOR
40	RACK SIZE
41	HANDLE EXTENSION 550
42	HOUSING EXTENSION 550
43	GUIDE ASSY END 550
44	HOUSING BASE 550
45	LINK SW SIZE1-550
46	LINK SW SIZE2-550

47	LINK SW SIZE3-550
48	LINK SW SIZE LOW
49	- -
50	550 PAPER CASSETTE (with 1-13,15-32,34-48,52,53)
51	- -
52	STOPPER BASE R
53	STOPPER BASE L

*1: Periodical Replacement parts (per 200k print)

3sets [1] of PL20.2.11,12,PL20.3.2

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Chapter 6 Principles of Operation

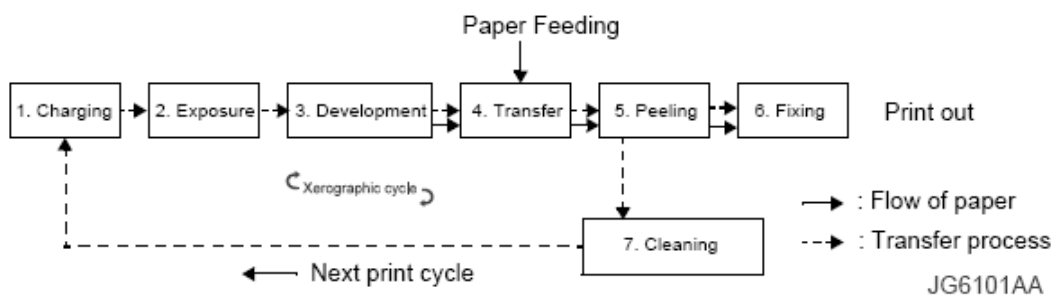
Engine

1. Summary of Printing Process

Electrophotography is used in the printer to print image on paper using a video signal sent from the PWBA ESS to the MCU of the HVPS/MCU. The electrophotography is composed of the following 7 steps:

- (1) Charging - Negative charges are uniformly distributed over the surface of the drum by Bias Charge Roll.
- (2) Exposure - The laser scanner scans the surface of the drum with a quite thin laser beam modulated according to the signal from the PWBA ESS (controller), to create an invisible electrostatic latent image on the drum surface.
- (3) Development - During development, toner particles are attracted to the electrostatic latent image on the drum surface. Thus, a visible toner image is created.
- (4) Transfer - The toner image is transferred from the drum surface to the paper.
- (5) Peeling - Electric charges on the paper are partially neutralized. As a result, the paper is peeled off from the drum surface.
- (6) Fixing - The toner image is permanently fixed to the paper by heat and pressure.
- (7) Cleaning - The remaining toner is removed from the drum surface.

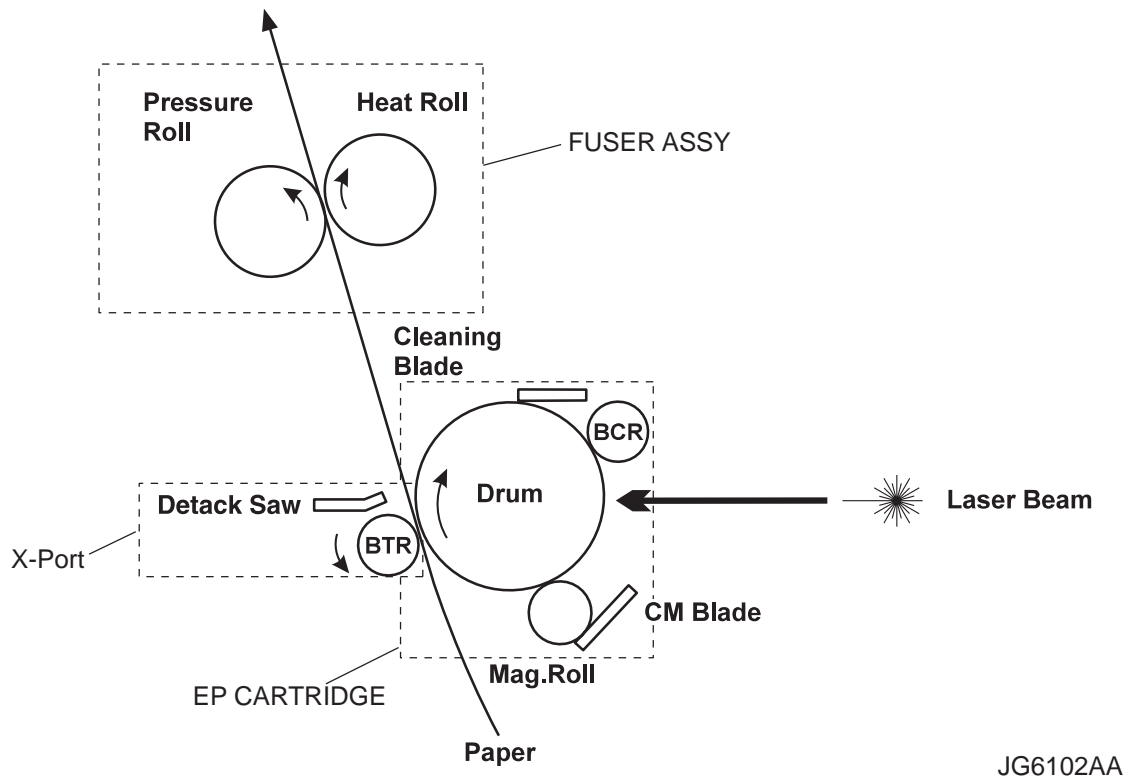
Summary of print process:



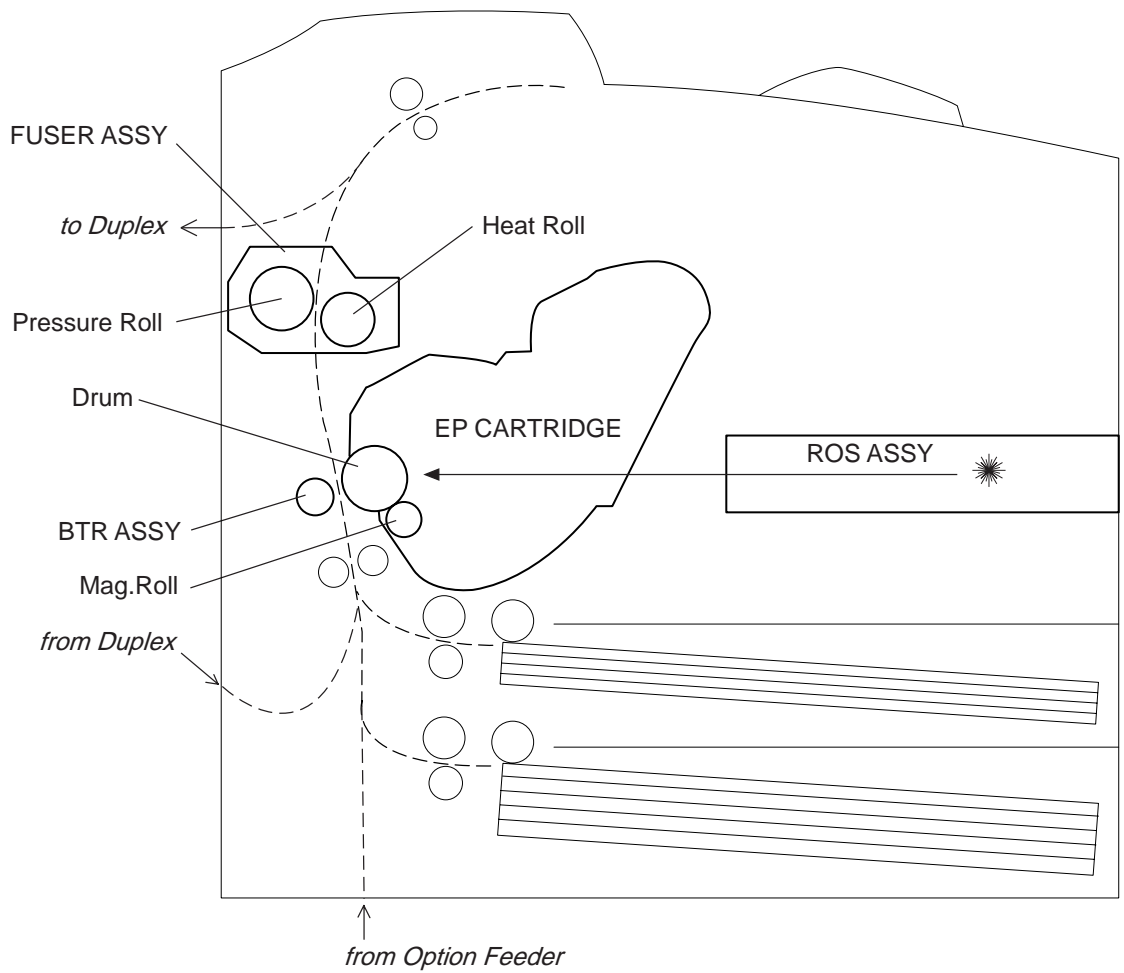
By rotating the drum, the surface undergoes various steps including charging, exposure, development, transfer, peeling, and cleaning. A toner image is created on the surface of the drum and transferred to the paper. The paper is subjected to some steps including transfer, peeling, and fixing by the paper transport mechanism. When the paper is placed in position relative to the image, the toner image is transferred to the paper from the drum surface, and then fixed.

Main components directly associated with the print process and transport of the paper are shown in the following figure.

Components associated with print process:



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Components associated with transport of paper:

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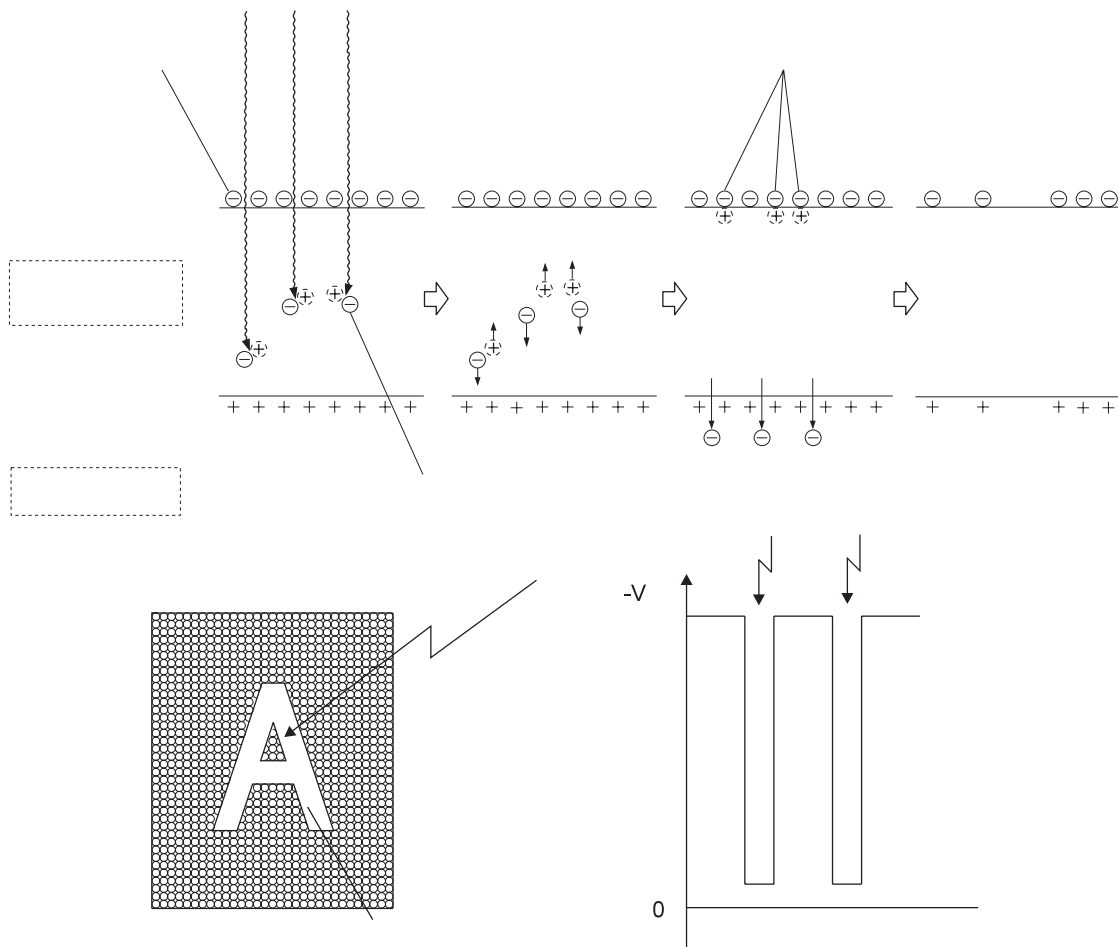
In the exposure step, the surface of the drum negatively charged by the previous charging step is scanned by a thin laser beam. The light radiated from the laser diode of the ROS (Raster Output Scanner) scans the drum from one end to the other. The light passes via a rotating polygon mirror (12 facets) and also via a lens.

The radiation of the laser beam is adjusted according to a video signal from the PWBA ESS.

The laser beam shot at the drum excites electrons directed to the photoconductor. As a result, electron hole pairs are induced in the photoconductive layer. Since electrons are moved toward the body inside the drum by the electric field, the electron-hole pairs move to the surface of the photoconductive layer. Negative charges in this portion decrease, thus creating an invisible electrostatic latent image there.

Toner particles are adsorbed onto this electrostatic latent image in the next step. Thus, the image is developed. The toner particles adsorbed to the drum are attracted to positive charges supplied by the BTR, and are transferred to the paper. The drum is sent for peeling and cleaning steps.

Electrostatic latent image formed on drum:



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In the cleaning step, the remaining toner is removed from the drum surface. The drum surface is prepared for the next cycle.

NOTE

The toner is scraped off the drum surface by a cleaning blade.

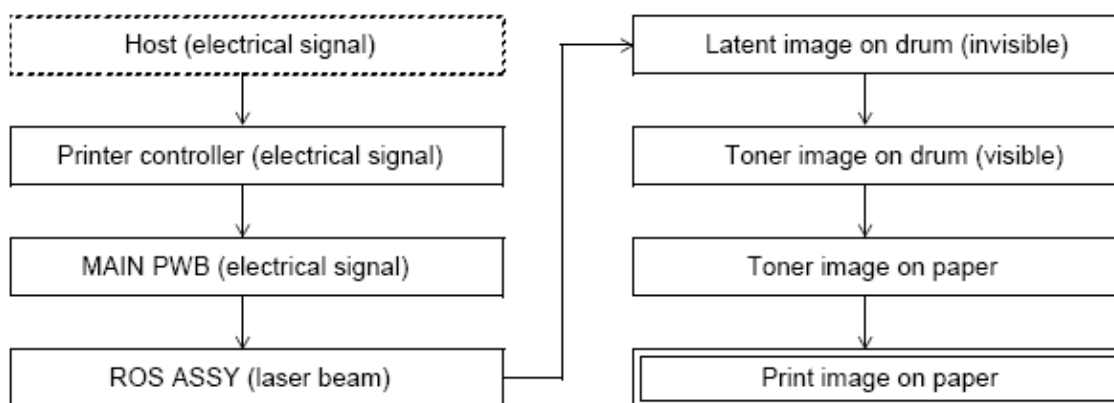
The toner scraped off in the cleaning step is collected in a recovery toner compartment partitioned from unused toner.

The transfer rate is normally more than 90%, but varies according to the image coverage range and environmental conditions such as temperature and humidity. The used toner cannot be reused. When the printing step is started, the whole drum surface is scanned with a laser beam. If charges generated in the previous step remain on the drum surface, they are completely removed. When the continuous printing step is started and finished, a negative high voltage is applied to the BTR. If toner particles adhere to the BTR in the previous printing step, the toner particles are returned to the drum surface. In this way, the surface of the BTR is cleaned.

2. Flow of Print Data

The NIC (Network Interface Card) of the printer connected with a network receives a packet signal in a bit stream from a client or server of the network, and decomposes the packet signal received next into a data format adapted for a layer from which the data is sent to the Controller. The Controller processes the data from the NIC by the same method as for data received from the host computer via a parallel port. (These two types of data are referred to as host data.) PWBA ESS acts to buffer the rasterized bit-image host data or converts host data in PDL (Page Description Language) into rasterized bit-image data. The PWBA ESS sends each line of the rasterized bit-image data to the MCU of the HVPS/MCU whenever the laser beam makes a scan. This signal carrying image data (/VDO signal) is converted into LVDS signal by the MCU of the HVPS/ MCU, and is sent as XP.DATA+ and XP.DATA- signals to the ROS ASSY, where the signal is converted into a laser beam. The beam is emitted with a quite small diameter. The beam is turned ON and OFF according to the video signal. The laser beam is reflected off the surface of a rotating polygon mirror, so that the beam is concentrated to the surface of the drum of the EP CARTRIDGE by a series of lenses. As a result, an electrostatic latent image is created on the drum surface.

Print data (electrical signal) from the printer controller is converted into a print image through the following flow.

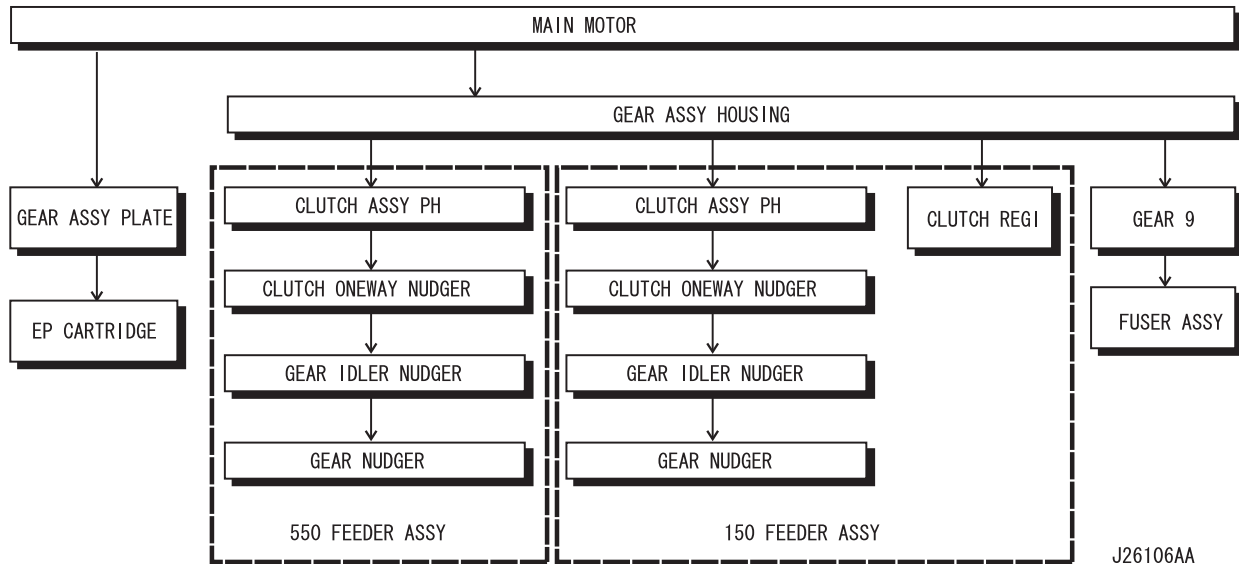


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3. Driving Force Transmission Path

3.1 MAIN MOTOR

The rotating force of the MAIN MOTOR is transmitted via gears in the GEAR ASSY HOUSING and via the GEAR ASSY PLATE to components that need mechanical driving force as shown in the following flow.



The driving force transmitted to the EP CARTRIDGE drives the Drum, and is transmitted to the BTR ASSY through the Drum Gear.

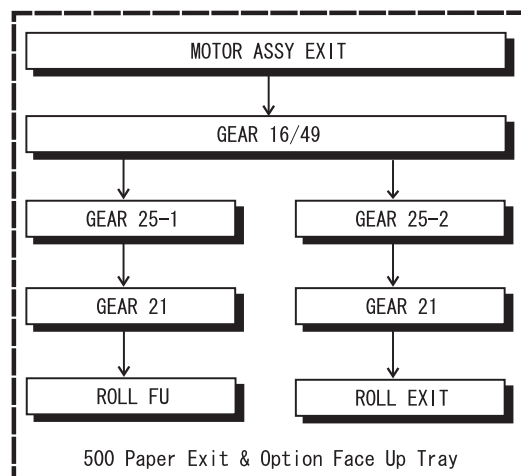
The driving force transmitted to the 550 FEEDER ASSY drives the ROLL ASSY NUDGER and ROLL ASSY FEED.

The driving force transmitted to the 150 FEEDER ASSY drives the ROLL REGI METAL and ROLL REGI RUBBER, as well as the ROLL ASSY NUDGER and ROLL ASSY FEED.

The driving force transmitted to the FUSER ASSY drives the Heat Roll.

3.2 MOTOR ASSY EXIT

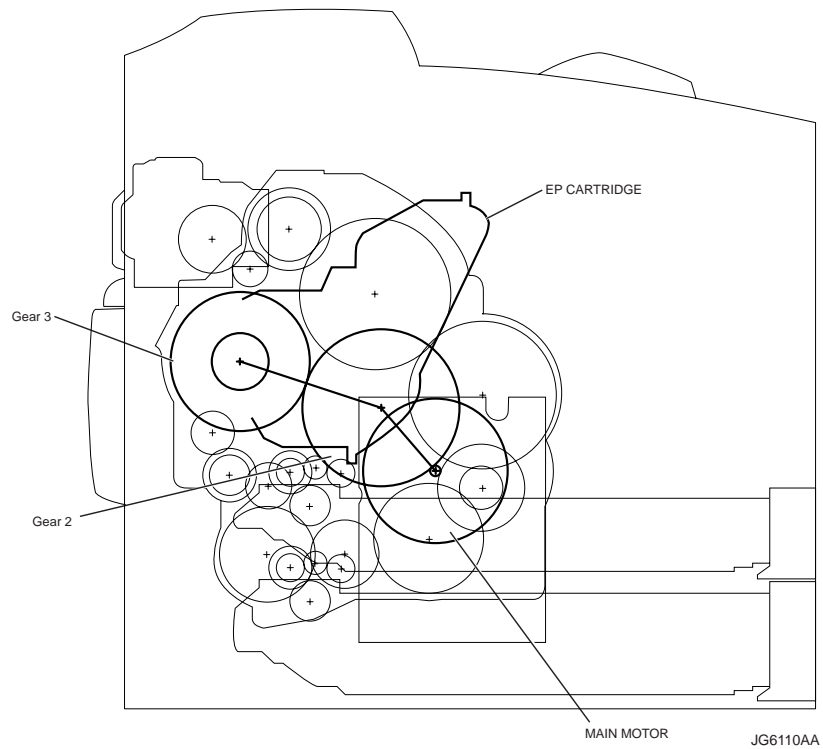
The rotating force of the MOTOR ASSY EXIT is transmitted via various gears to components that need mechanical driving force as shown in the following flow.



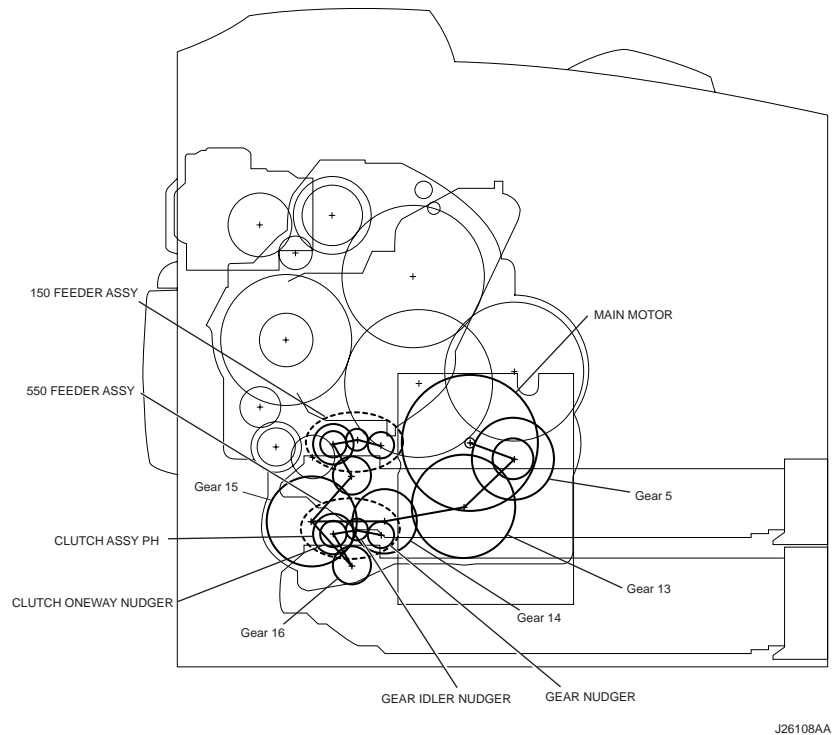
J26107AA

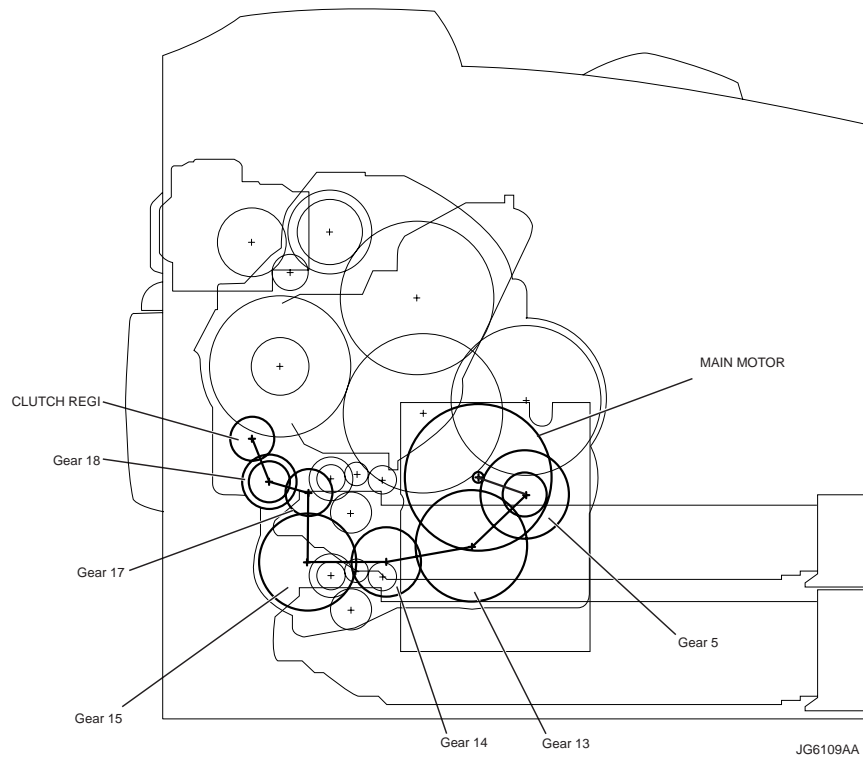
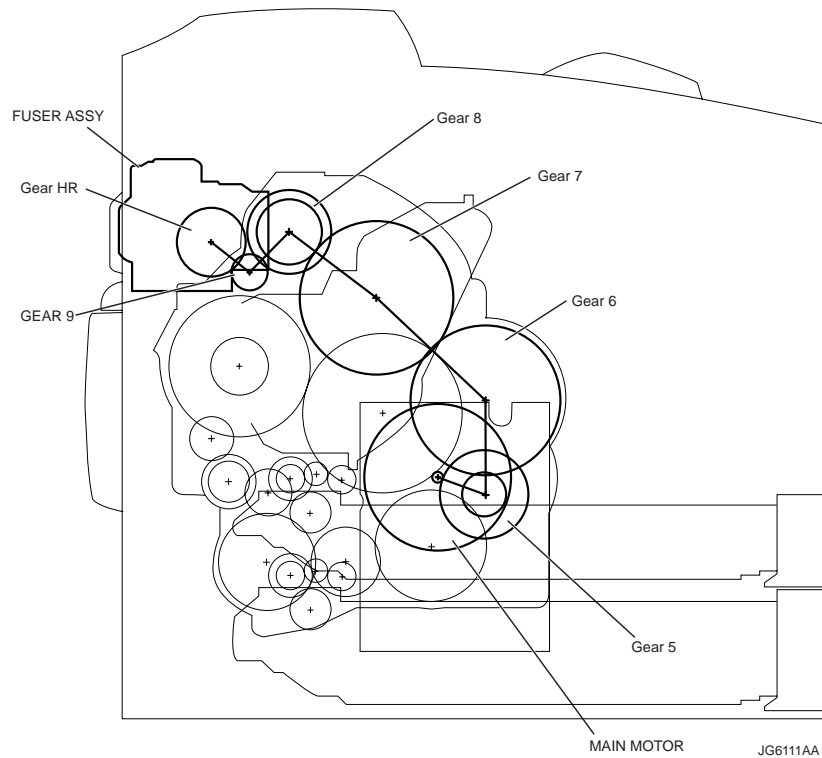
3.3 Gear Layout

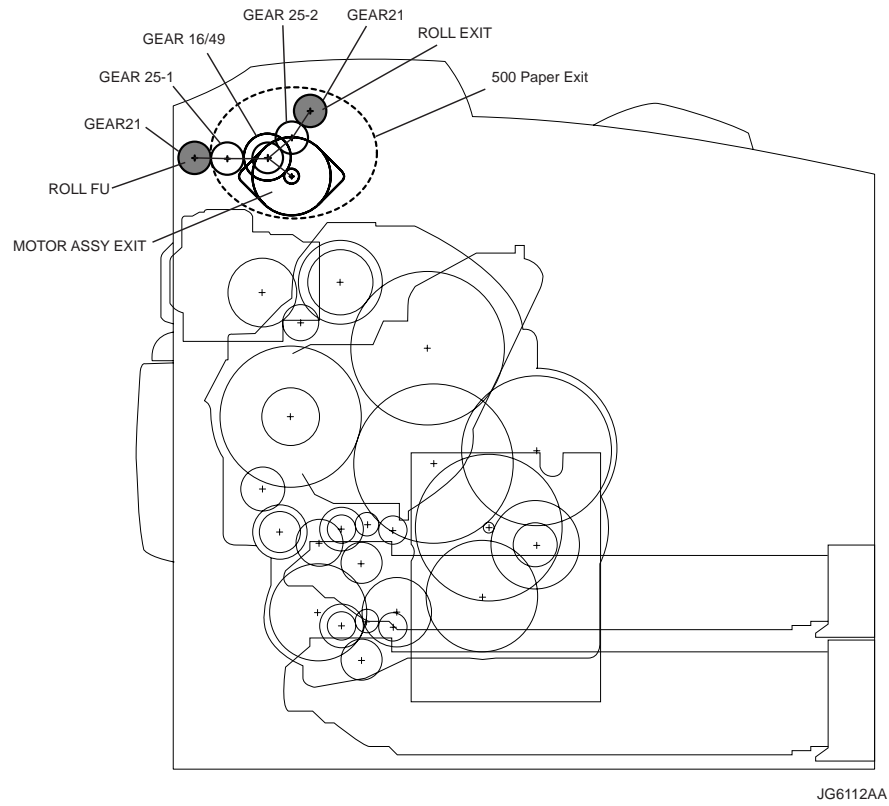
Drive path in EP CARTRIDGE:



Drive path in FEEDER ASSY:



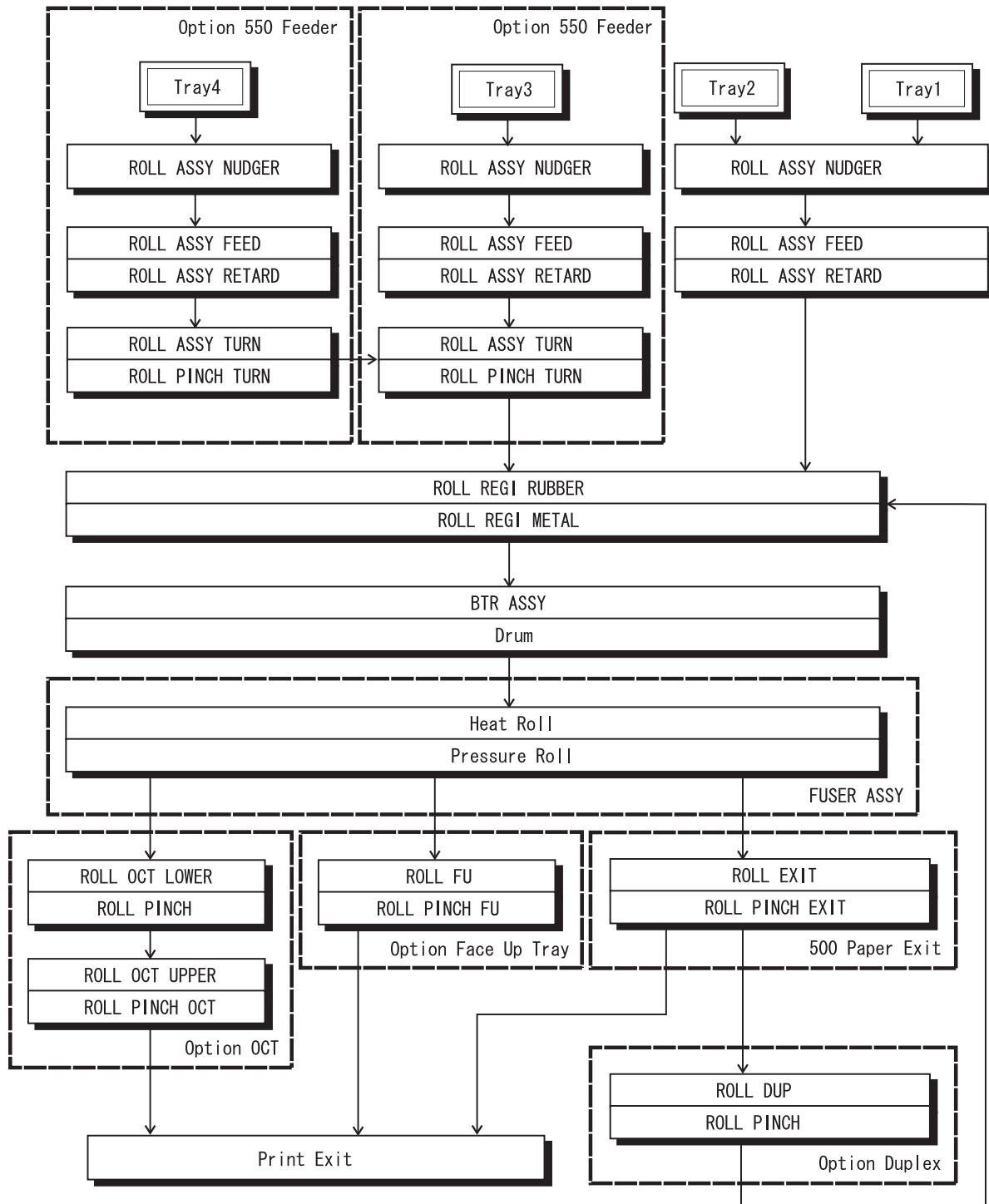
Drive path in CLUTCH REGI:Drive path in FUSER ASSY:

Drive path in 500 Paper Exit & Option Face Up Tray:

4. Paper Transport

4.1 Paper Transport Path

The paper is supplied from the Tray1 and Tray 2 or the optional Tray3 and Tray 4, and is transported into the printer along the paper path shown below.

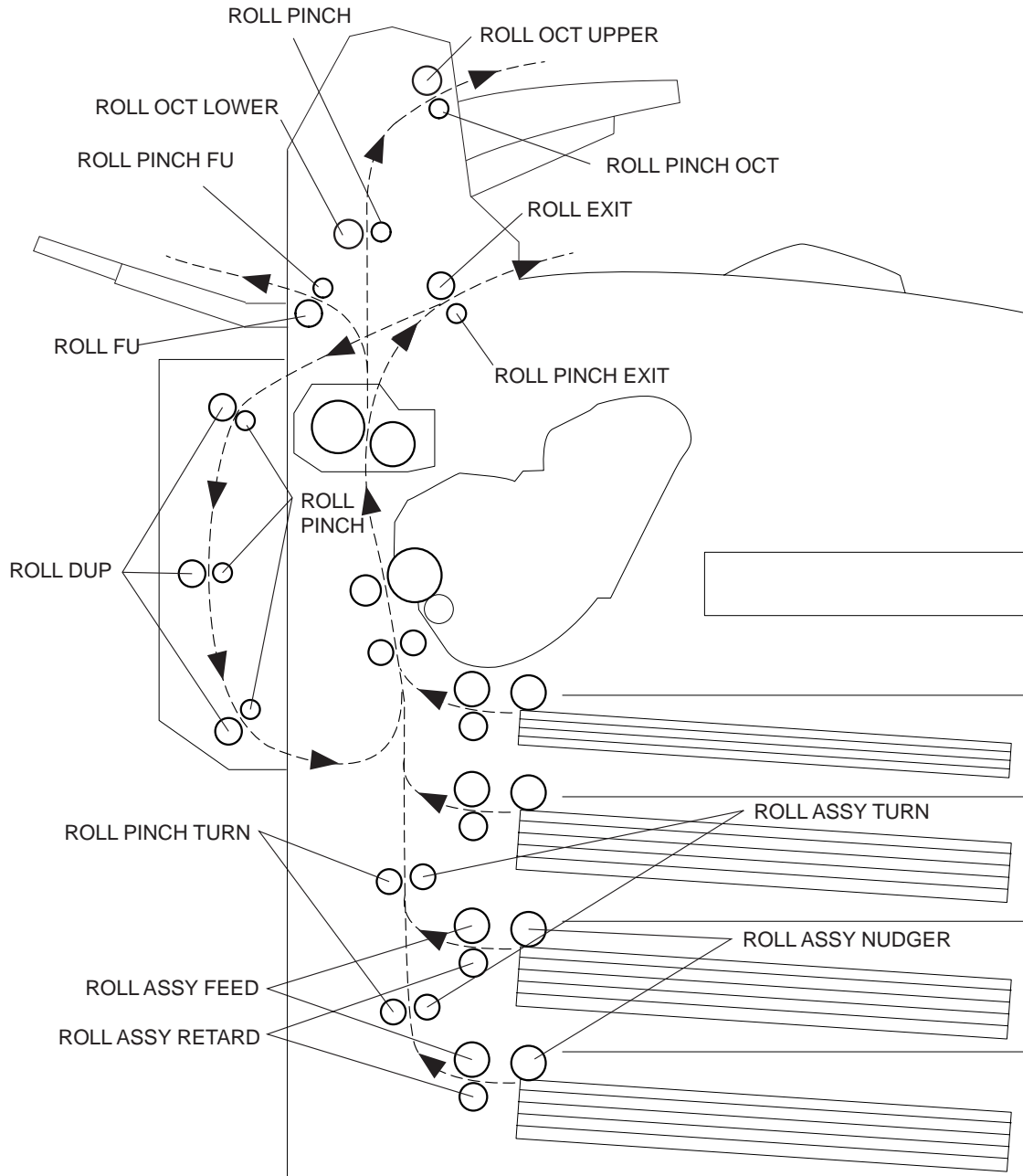


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4.2 Layout of Paper Transport Path

The following is a cross section of the JIGEN printer. Main components directly associated with the paper path and transport are shown here.

Main components associated with transport of paper (when Option Duplex, Option 550 Feeder, Option OCT and 500 Paper Exit & Option Face Up Tray are installed):



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5. Actions of Main Functional Components

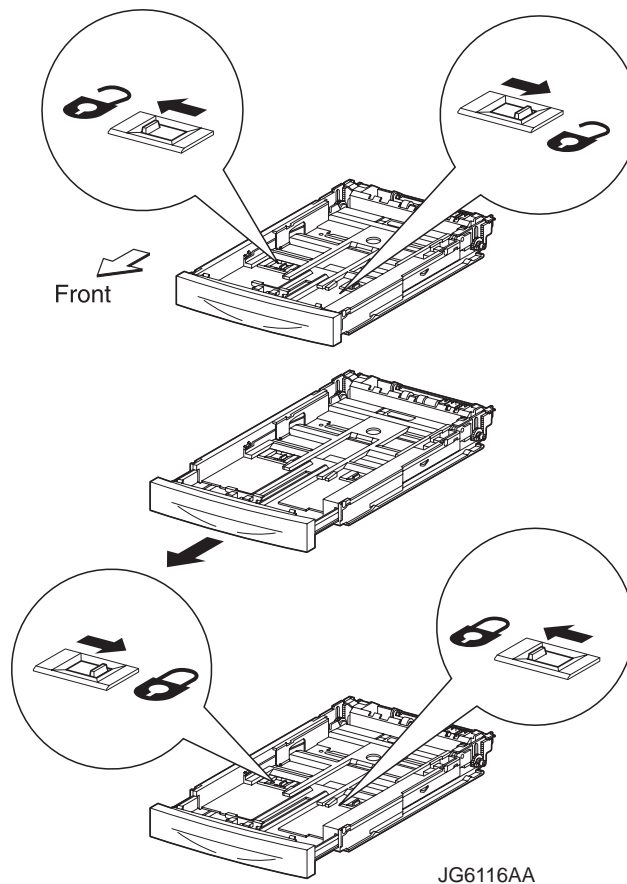
The functions of the main components of the JIGEN printer are described in the following sections:

- 5.1 Paper Cassette
- 5.2 Paper Feeder
- 5.3 Xero
- 5.4 Fuser
- 5.5 500 Paper Exit & Option Face Up Tray
- 5.6 Drive
- 5.7 Electrical

5.1 Paper Cassette

Paper cassette models available include the 150 Paper Cassette and the 550 Paper Cassette. They are functionally equivalent, therefore only the 150 Paper Cassette is described here. Since a LOW INDICATOR does not exist on the 150 models, explanation for this indicator applies to the 550 Paper Cassette only.

If the paper is smaller than A4, adjust the GUIDE ASSY END 150 and GUIDE ASSY SD on the Paper Cassette to match the size. If the paper is larger than A4, disengage the EXTENSION that locks the HOUSING BASE 150 and HOUSING EXTENSION 150, and pull out the extension. Then adjust the GUIDE ASSY END 150 and GUIDE ASSY SD to match the size. When the extension is returned its original position, the LOCK EXTENSION locks automatically.



GUIDE ASSY L150 and GUIDE ASSY SD R150

The GUIDE ASSY SD R150 can be adjusted to different paper sizes by moving it to the left or right. The guides come into contact with the left and right edges of the paper and hold it in position. The GUIDE ASSY SD L150 moves simultaneously with the GUIDE ASSY SD R150.

LOCK EXTENSION

The 150 Paper Cassette is so constructed that it can cope with the length of the paper in the direction of travel by moving the position of the HOUSING EXTENSION150 forward and backward. The LOCK EXTENSION is adopted as a mechanism for holding the HOUSING EXTENSION150 in position.

GUIDE ASSY END150

This can be adjusted to different paper sizes by making a forward or backward adjustment. This makes contact with the rear end of the paper, and holds it in position in the forward and rearward directions. The paper size to which the cassette is set is transmitted to the LINK SW SIZE 1/2/3 via the GEAR SECTOR and RACK SIZE by the GUIDE ASSY END150. The three LINK SW SIZE units turns ON or OFF respectively according to the transmitted paper size. The paper size is detected by transmitting the ON/OFF information to the Size Switch in the GUIDE TRAY LEFT. The types of paper that can be automatically detected are as follows:

Type	Size (mm × mm)
Letter SEF	215.9 × 279.4
Legal 14" SEF	215.9 × 355.6
Legal 13" SEF	215.9 × 330.2
Executive SEF	184.2 × 266.7
A4 SEF	210.0 × 297.0
B5 (JIS) SEF	182.0 × 257.0
A5 SEF	148.5 × 210.0

LEVER BTM LOCK and STOPPER GEAR

These are at the rear end of the cassette (i.e. the exit path of the paper). When the cassette is inserted into the printer, the protrusions on the Feeder trigger the mechanism that depresses the LEVER BTM LOCK, slides the RACK BTM LOCK 150, and then simultaneously unlocks the GEAR PINION and GEAR PB R of the STOPPER GEAR.

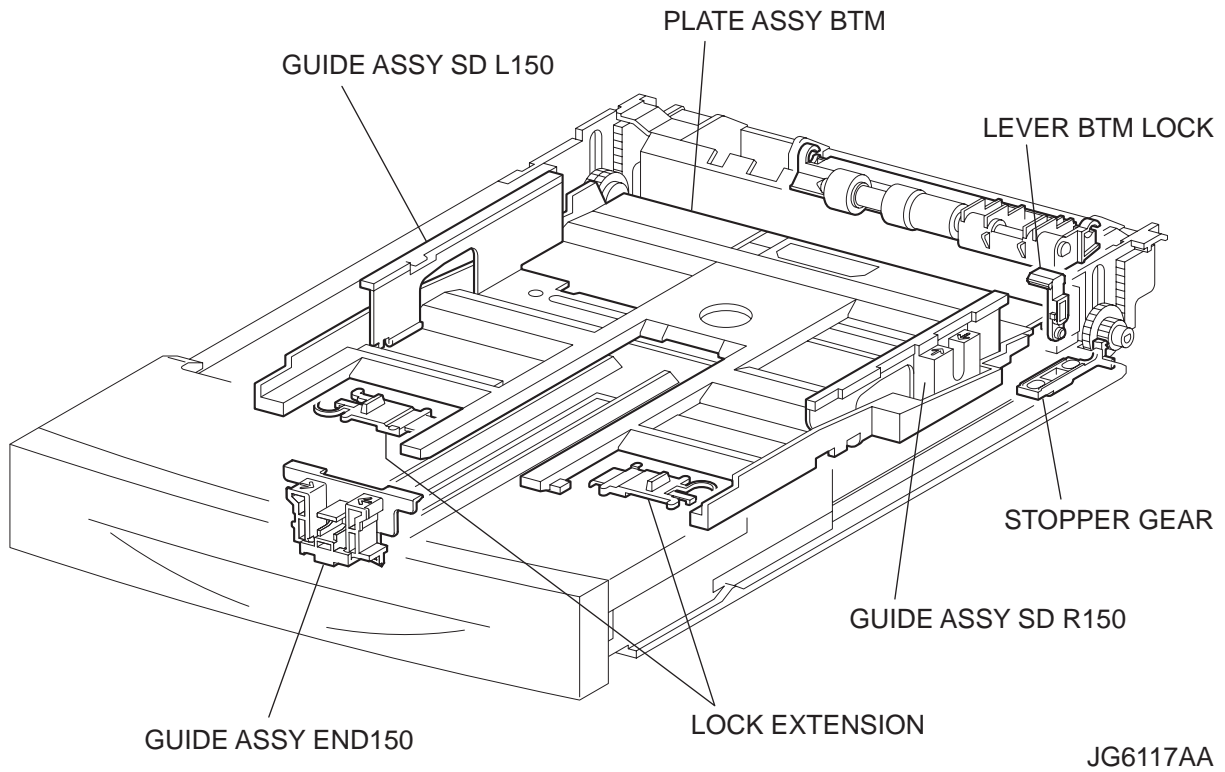
PLATE ASSY BTM

The force pushing up the PLATE ASSY BTM is supplied via the SPRING BTM UP150 by unlocking the LEVER BTM LOCK and STOPPER GEAR. When the PLATE ASSY BTM is pushed up, the supplied paper and ROLL ASSY NUDGER touch each other.

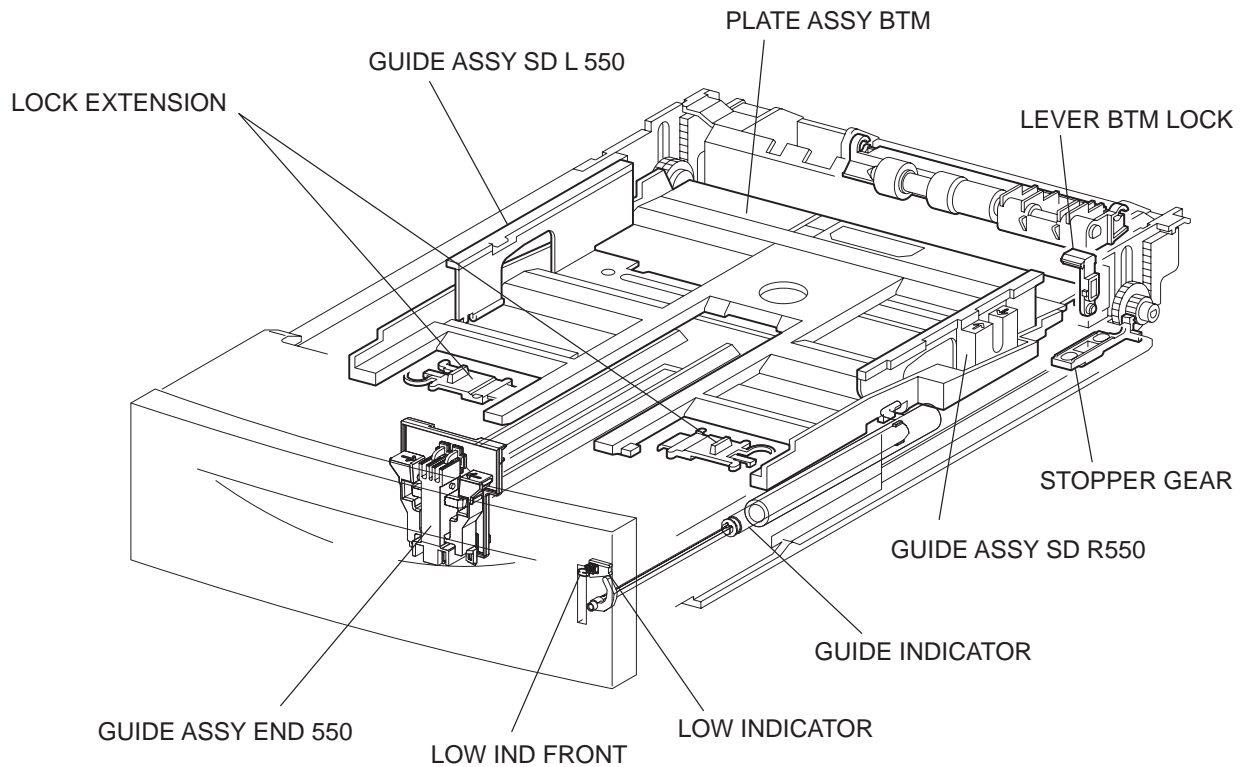
LOW INDICATOR

The LOW INDICATOR is installed only on the 550 Paper Cassette. The amount of paper remaining in the cassette is indicated by the LOW IND FRONT. As the amount of paper reduces, the PLATE ASSY BTM rises and the LOW IND FRONT goes down in the GUIDE INDICATOR.

150 Paper Cassette:



550 Paper Cassette:



5.2 Paper Feeder

Since the Tray1 and Tray2 are functionally equivalent in terms of the Size Switch, ACTUATOR NO PAPER, and SENSOR NO PAPER, only the components of one tray are described here. Since the ACTUATOR LOW PAPER and SENSOR LOW PAPER are not installed in the Tray1, the description of these components applies to the Tray2 only.

150 FEEDER ASSY(Tray1) / 550 FEEDER ASSY(Tray2)

This is a mechanism for supplying paper from the Paper Cassette into the printer. The driving force from the MAIN MOTOR is transmitted via the CLUTCH ASSY PH to the ROLL ASSY FEED and ROLL ASSY NUDGER that are components of FEEDER ASSY. Thus, the paper is transported. When the ROLL ASSY NUDGER picks up some sheets of paper and the paper gets low, the position of the ROLL ASSY NUDGER drops accordingly. The lowered ROLL ASSY NUDGER pushes down the lock lever of the PLATE ASSY BTM, releasing it. The PLATE ASSY BTM is pushed up by a spring, and thus the paper is raised. The raised paper then raises the SUPPORT NUDGER. The SUPPORT NUDGER disengages from the lock lever of the PLATE ASSY BTM. The PLATE ASSY BTM stops moving upward.

Size Switch

A switch for setting the size of paper supplied from each Paper Cassette is mounted. A signal indicating the set size is transmitted as a voltage to the HVPS/MCU.

ACTUATOR NO PAPER

If paper runs out in the Paper Cassette, the ACTUATOR NO PAPER drops and the flag of the ACTUATOR NO PAPER that shielded the detection portion of the SENSOR NO PAPER moves off the detection portion. Thus, the light is transmitted.

SENSOR NO PAPER

The presence or absence of paper in the Paper Cassette is detected by the position of the ACTUATOR NO PAPER. This is converted into an electrical signal. If the detection portion is shielded (i.e., there is paper), /NO-PAPER 1/2 SNR ON signal is turned OFF.

SENSOR REGI

The paper transported from the Paper Cassette pushes up the ACTUATOR B. The flag of the ACTUATOR A optically exposes the detection portion of the SENSOR REGI. Thus, the passage of paper is detected.

CLUTCH REGI

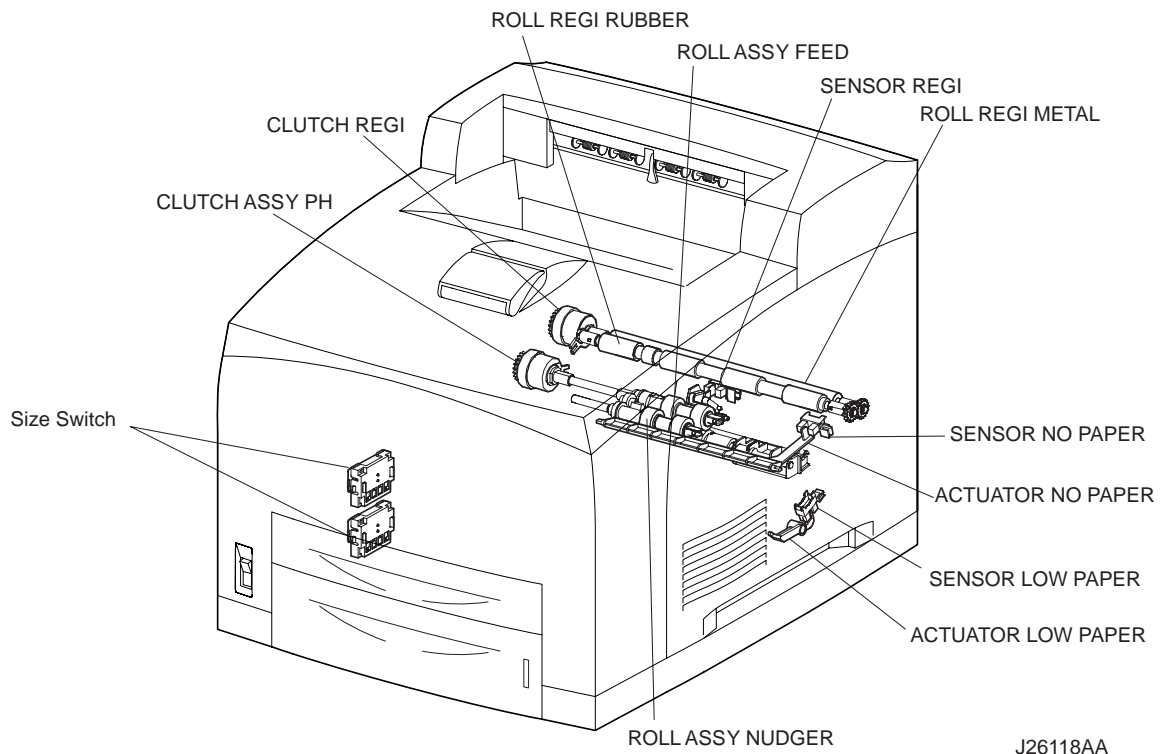
This electromagnetic clutch turns ON and OFF the driving force to the ROLL REGI RUBBER and ROLL REGI METAL, to place the paper in position.

ACTUATOR LOW PAPER

When paper is low in the Paper Cassette installed in the Tray2, the arm of the ACTUATOR LOW PAPER is pushed up by the PLATE ASSY BTM. The flag of the ACTUATOR LOW PAPER that shielded the detection portion of the SENSOR LOW PAPER moves off the detection portion. Thus, the light is transmitted.

SENSOR LOW PAPER

When paper is low in the Tray2 Paper Cassette, this is detected by the position of the ACTUATOR LOW PAPER and converted into an electrical signal. When the detection portion is shielded (i.e. paper is high), /LOW PAPER SNR ON signal is turned OFF.



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5.3 Xero

EP CARTRIDGE

The EP CARTRIDGE is also known as CRU (Customer Replaceable Unit), and is made up of the following five components.

-Drum

This is a cylinder of aluminum and coated with a photoconductive material. Because of this photoconductive coating layer, electric charges are retained on the surface in the dark, and electrical conduction occurs when exposed to light.

-BCR (Bias Charge Roll)

This uniformly distributes electric charges over the drum surface, and erases a charge-reduced pattern remaining from the previous cycle.

-Magnet Roll

This holds toner as a thin layer on the surface of this roll, and acts to transport the toner into the gap between the drum and Magnet Roll. The toner is supplied to the Magnet Roll by the Agitator in the Toner Compartment.

-CM Blade (Charging and Metering Blade)

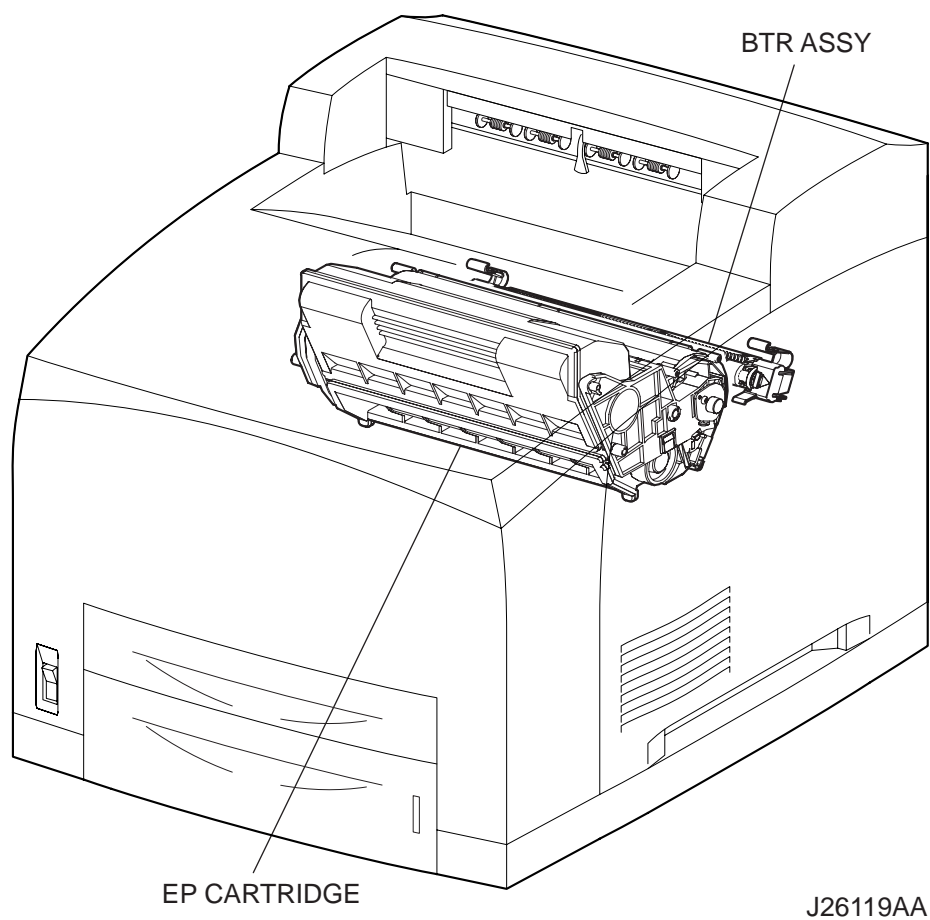
This spreads the toner into a thin layer over the Magnet Roll, and applies negative charges to the toner tribo-electrically.

-Cleaning Blade

This scrapes toner remaining after the transfer step off the drum surface.

BTR ASSY

The BTR of the BTR ASSY is in contact with the drum of the EP CARTRIDGE, and is driven by the Drum Gear. When the paper moves between the BTR and Drum, the BTR applies positive charges to the rear surface of the paper. The negatively charged toner image is attracted by positive charges on the rear surface of the paper. Thus, the image is transferred from the surface of the drum to the surface of the paper.



ROS ASSY

The ROS (Raster Output Scanner) scans the surface of the drum with a laser beam. The ROS ASSY consists of the following three components, i.e., LD (Laser Diode) Assembly, Scanner Assembly, and SOS PWB.

-LD Assembly

The LD Assembly produces a laser beam. This beam is turned ON and OFF according to a print data signal.

-Scanner Assembly

The Scanner Assembly consists of a Polygon Mirror (12 facets) and a Scanner Motor. The Polygon Mirror is mounted to the shaft of the Scanner Motor. The Scanner Motor rotates the Polygon Mirror at a specified speed. The rotating Polygon Mirror reflects the beam to the drum surface through lenses and mirrors, to scan the beam from one end to the other of the drum. One scan is made with one facet of the mirror. The Scanner Motor is driven by three phase, full-wave current linear drive. The current through the winding of each phase is switched by a Hall amplifier matrix. The signal from the phase detection terminal of the Motor is used.

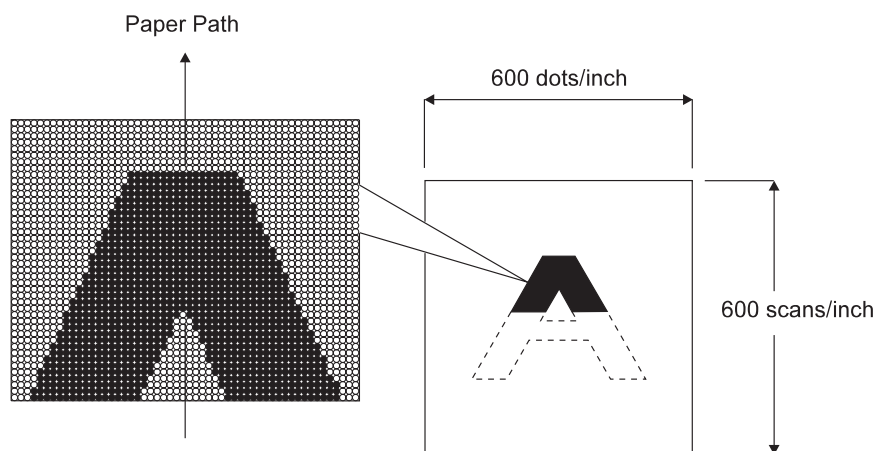
-SOS PWB

When the laser beam hits the SOS Sensor of the SOS PWB, the beam is converted into an electrical signal (SOS signal), and the initial position where a scan is started on each line is detected.

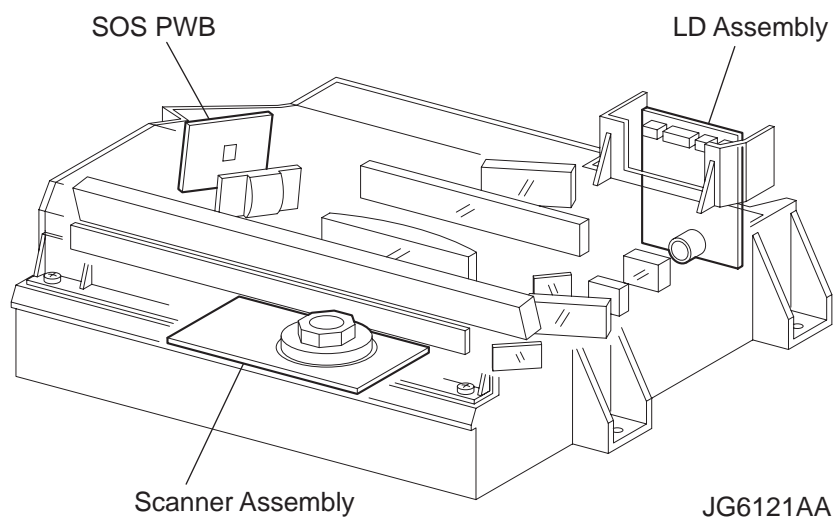
When the laser beam is scanned across the drum surface from one end to the other while turning ON and OFF the beam, one line of latent image is created. If the scanning by the laser beam is repeated while rotating the drum, a two-dimensional image is created. The resolution in the scanning direction (from right to left) is determined by the rotational speed of the Scanner Motor and by the speed at which the laser is adjusted. The resolution in the process direction (from top to bottom) is determined by the rotational speed of the Scanner Motor. (If the scanning speed is increased, the next row to be scanned can be started earlier accordingly.)

Conceptual diagram of image creation by scanning

Conceptual diagram of image creation by scanning



JG6120AA



5.4 Fuser

Heat Roll

This is a hollow metal tube having a coated surface. This tube is heated by the inside Heater Rod. Heat is applied to the paper passing between this roll and the Pressure Roll. This heat fuses and fixes the toner on the paper.

Pressure Roll

This is a metal shaft coated with sponge rubber. Pressure is applied to the paper between this roll and the Heat Roll. This pressure presses the melted toner against the paper.

Heater Assembly

The Heater Assembly consists of a Heater Rod located in a Heat Roll and a harness connecting the Heater Rod to a terminal. The Heater Rod consists of heater coil inside a quartz glass and heats up the Heat Roll.

Temperature Sensor

This is a resistor (thermistor) having a known value of resistance that sensitively varies with temperature. This sensor is mounted in contact with the surface of the Heat Roll, and monitors the temperature of the surface. The power supply of the Heater Rod is turned ON and OFF using the signal from this sensor, so that the surface temperature of the Heat Roll can be maintained within a specified range. This signal is also used to provide a first stage of overheat protection.

Thermostat Sensor (STS)

Two STS are installed. The STS are connected to the Heat Roll in series. This provides a second stage of overheat protection. If the first stage does not prevent the Fuser from overheating, the Thermostat cuts off the power-supply circuit for the Heater Rod. The STS operates as follows:

- (1) If the paper is set incorrectly, the Pressure Roll may melt and adhere. As a countermeasure against this, the power-supply circuit is cut off to cool down the roll, if the detected temperature gets higher than a preset temperature.
- (2) If the temperatures increase at both sides of the Heat Roll, both ends of the paper may curl. As a countermeasure against this, the mode is switched to Short lamp lighting to control the temperature rise, if the detected temperature exceeds the preset temperature.

Heat Roll Fingers

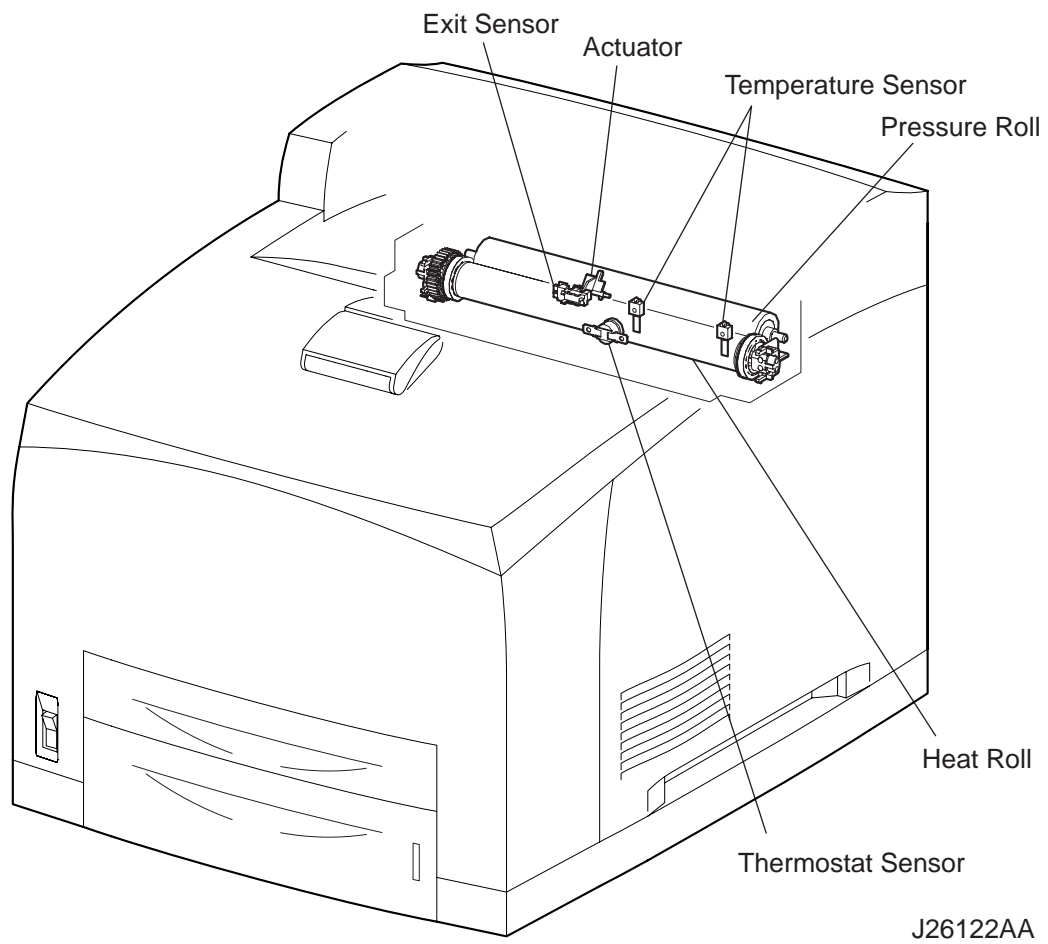
These fingers peel off the leading edge of the paper from the Heat Roll to prevent the paper from getting wound around the Heat Roll.

Heat Roll Diode

The negative charge accumulated on the Heat Roll may deteriorate the toner image on the paper during fixing. The Heat Roll Diode discharges the charge to the frame ground.

Exit Sensor

This sensor detects the arrival of the paper at a detection point in the exit area positioned behind the Fuser. This sensor also detects the discharge of the paper from this point. When the sensor receives light (i.e., paper is present), /EXIT goes Low.



5.5 500 Paper Exit & Option Face Up Tray

500 Paper Exit is components for discharging the printed paper out of the printer. 500 Paper Exit enables Face-Up output to the Option Face Up Tray (mounted on the rear surface of the machine), and output to Option OCT as well as Face-Down output.

MOTOR ASSY EXIT

This motor drives the ROLL EXIT that conveys paper to each output tray. If the optional DUPLEX is installed, this motor has also a function of reversing and inserting paper into the Duplex.

ROLL EXIT

This roll transports the printed paper sent out from the Fuser, to the Face-Down output tray.

ROLL FU

This roll discharges the printed paper sent out from the Fuser, to the Face-Up output tray.

SENSOR FACE UP OPEN

This sensor detects that the Face-Up print has been selected. If the LEVER GATE FU is raised, a signal is detected by the Actuator attached to the interlocking GATE FU, and the Face-Up print mode is set.

SENSOR FULL STACK

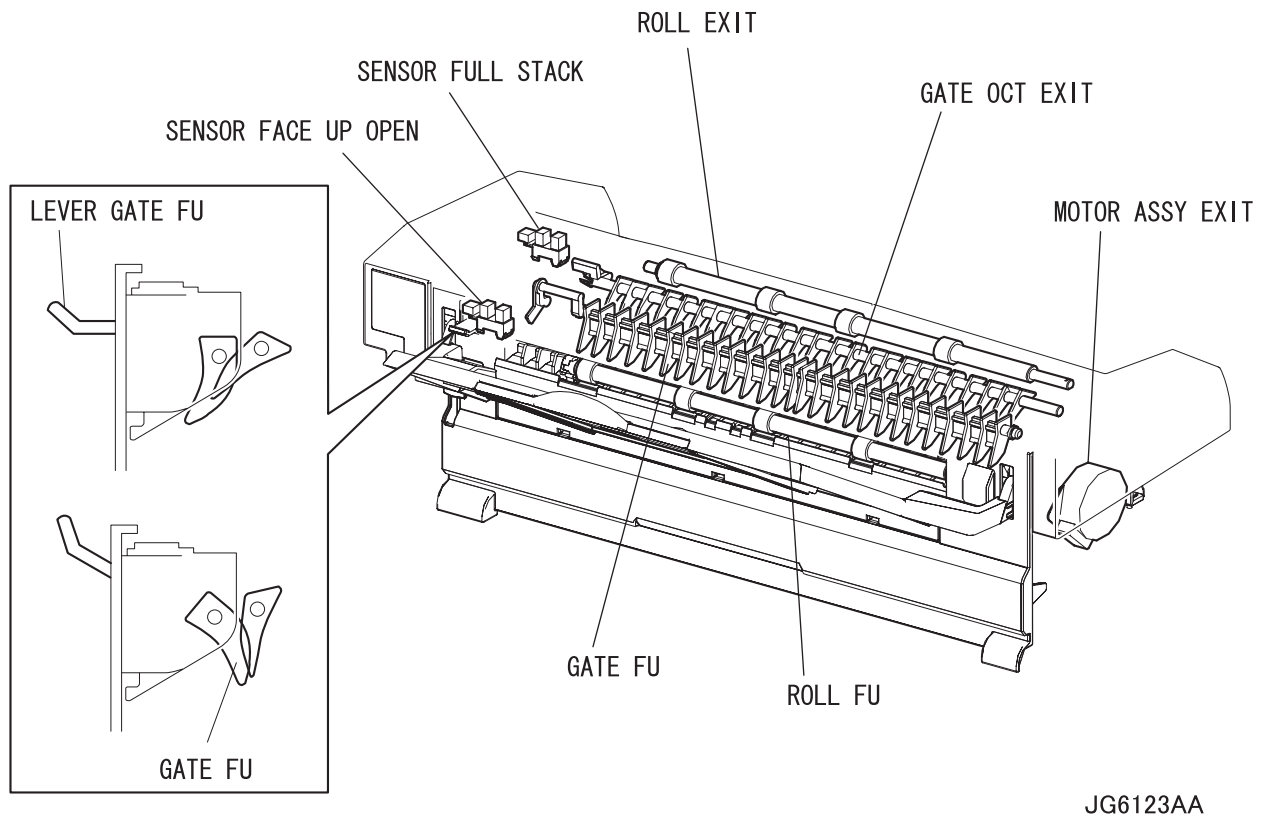
This sensor detects that the 500 Exit Face-Down output tray is full, using the ACTUATOR FULL STACK.

GATE FU

This gate switches the paper transport path interlocking with the LEVER GATE FU. When the LEVER GATE FU is raised, the GATE FU blocks the normal paper output path and switches the output direction to the Face-Up output tray.

GATE OCT EXIT

This gate switches the paper transport path interlocking with the LINK GATE OCT. When the SOLENOID ASSY GATE installed in the optional OCT operates, the LINK GATE OCT pushed down by the spindle of the SOLENOID ASSY GATE blocks the normal paper output path and switches the output direction to the OCT output tray.



5.6 Drive

GEAR ASSY HOUSING

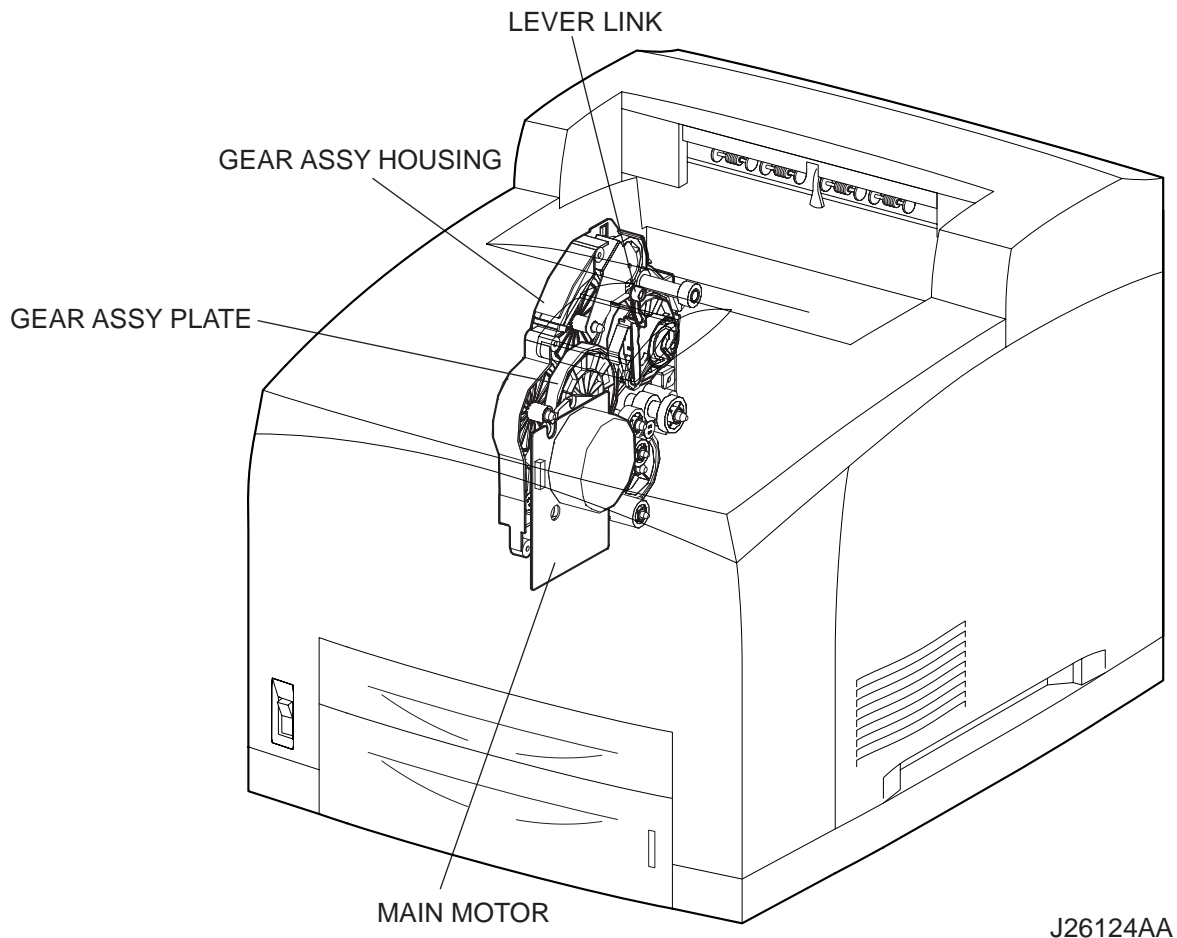
This housing is composed of gears for transmitting power from the MAIN MOTOR that drives the printer body to various portions of the printer.

GEAR ASSY PLATE

This transmits power from the MAIN MOTOR to the EP CARTRIDGE.

LEVER LINK

This connects and disconnects the power from the MAIN MOTOR to the FUSER ASSY. When the COVER OPEN is opened, the LEVER LINK pushes up the Gear 8 in the GEAR ASSY HOUSING, and disconnects the GEAR 9. Thus, the power path to the FUSER ASSY is disconnected. As the LEVER LINK moves up and down, the Gear 4 in the GEAR ASSY PLATE moves right and left via the LINK GEAR 3, and power to the Drum of the EP CARTRIDGE is connected or disconnected.



5.7 Electrical

INTERLOCK S/W 24V

This safety switch cuts off a 24 VDC power supply from the LVPS to the HVPS MCU and MAIN MOTOR when the COVER OPEN is open.

INTERLOCK S/W 5V

This safety switch cuts off a 5 VDC power supply from the LVPS to the LD Assembly of the ROS ASSY when the COVER OPEN is open.

INTERLOCK S/W REAR

This safety switch interrupts a 24 VDC power supply from the LVPS to the HVPS/MCU and MAIN MOTOR when the COVER REAR is open.

FAN MAIN

This vents air inside the printer to prevent an excessive rise in the inside temperature.

FAN SUB

This fan takes outside air into the printer to prevent an excessive rise in the inside temperature. This is mounted on the ROS ASSY in the center on the front side.

LVPS

This generates low DC voltages (5 V and 3 V for Logical Circuit, 5 V for Laser Diode, and 24 V for Motor and Clutch) from the AC power.

HVPS/MCU

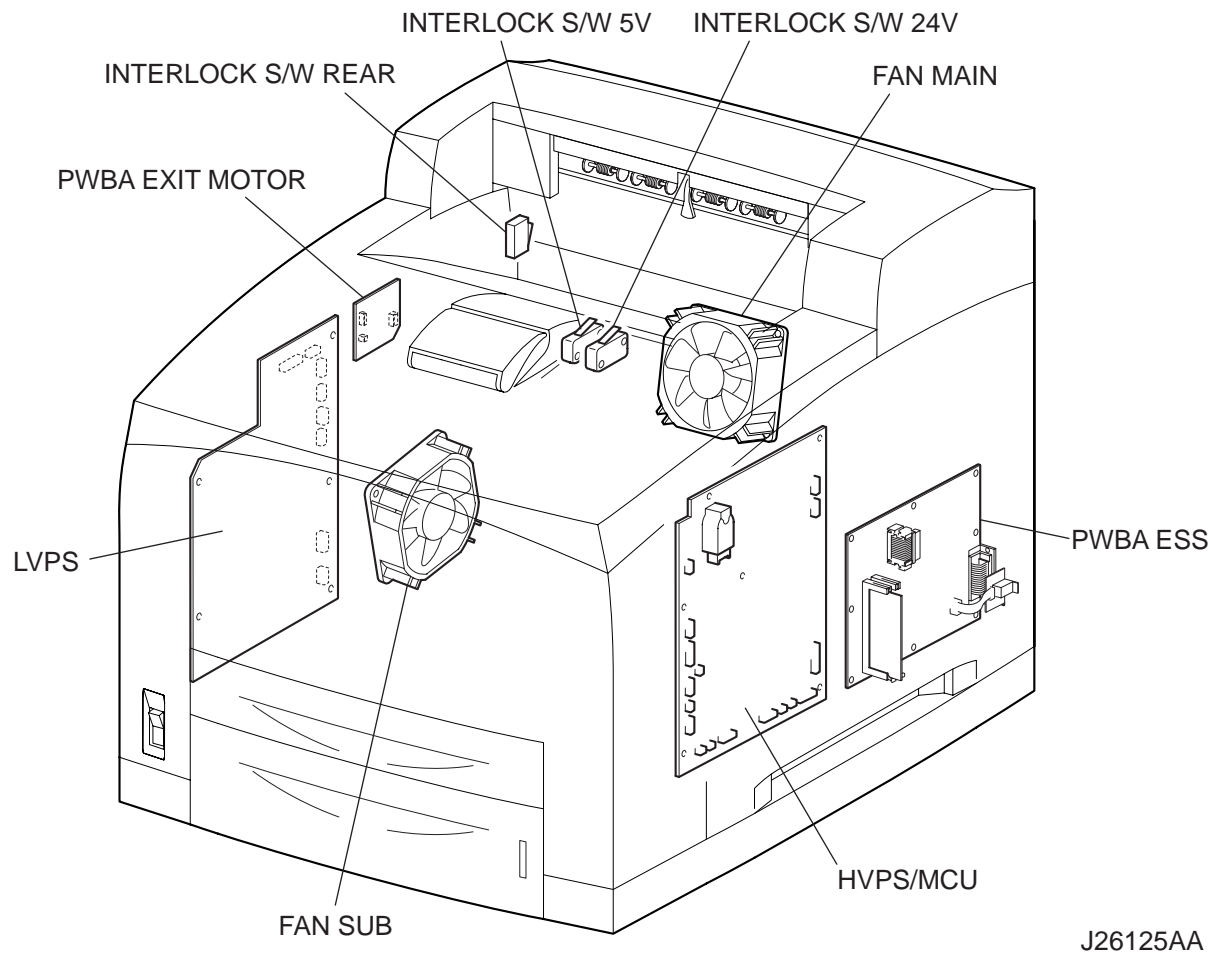
The functions of the HVPS and MCU are incorporated in this substrate. The HVPS generates high AC and DC voltages and supplies them to the BCR (charging), Magnet Roll (development), BTR (transfer), and Detack Saw (peeling). The MCU controls the printing operation according to the information obtained through communications with the Print Controller and from sensors and switches.

PWBA ESS

This receives data from the Host Computer, performs printing, and controls the whole printer.

PWBA EXIT MOTOR

This controls the MOTOR ASSY EXIT according to a signal from the HVPS/MCU.



6. Control

6.1 Control of Paper Size

6.1.1 Cassette Feeding (Paper Cassette)

The following table gives the states (ON(1) or OFF (0)) of the switches in the Size Switch, corresponding to the paper sizes of the Paper Cassette.

NOTE

The switches in the Size Switch are denoted by "SW1", "SW2", "SW3", and "SW4", respectively, from the front side.

Paper Size	Size Switch			
	SW1	SW2	SW3	SW4
No cassette	0	0	0	0
Executive SEF	0	0	0	1
B5(JIS) SEF	0	0	1	1
A5 SEF	0	1	0	1
Legal 14"SEF	0	1	1	1
Letter SEF	1	0	0	1
A4 SEF	1	1	0	1
Legal 13"SEF	1	1	1	1

6.2 ROS Control

6.2.1 Rotation of Scanner Motor

The control (ON/OFF) of the rotation of the Scanner Motor is performed as shown below according to the mode of operation.

Mode of operation	ON/OFF of rotation of Scanner Motor
Standby state	Kept OFF.
Printing state	Turned on by receiving signal from the Controller, and turned off after 10 s since end of printing.
Power-saving state	Kept OFF.

The following table gives the resolution that differs according to the specifications of the machine, and the corresponding rotational speeds of the Scanner Motor.

Process Speed	Resolution	RPM of Scanner	CLK signal frequency
269mm/s	600dpi	31,772rpm	3,177.2Hz
	1200dpi	31,772rpm	3,177.2Hz

dpi (dot per inch)

rpm (revolutions per minute)

NOTE

Each facet of the Polygon Mirror (12 facets) is scanned with a laser beam.

6.2.2 Warm-up of ROS

The Scanner Motor rotates simultaneously with the warm-up of the ROS. The SOS signal is sampled at intervals of 100 ms. If the obtained value is shorter than the Ready reference value three consecutive times, the warm-up of the ROS is ended (The Scanner Motor is rotating at a constant speed).

6.2.3 ROS Reference Value

ROS reference value	Description
Ready reference value	SOS signal interval corresponding to less than 98% of the specified rotational speed of the Scanner Motor
Fail reference value	SOS signal interval corresponding to less than 90% of the specified rotational speed of the Scanner Motor

NOTE

If the speed of the Scanner Motor increases by more than 1%, the laser beam does not enter the SOS Sensor, and "U2" is detected in terms of Fail reference value.

6.3 Fuser Control

6.3.1 Fuser Control

The Halogen Lamp is controllably turned ON and OFF, based on the Fuser control temperature. At the start of warm-up and when the MAIN MOTOR is at rest, the standby temperature is taken as the Fuser control temperature. When the MAIN MOTOR is operating except at warm-up, the running temperature is taken as the Fuser control temperature.

6.3.2 ON/OFF Control of Halogen Lamp

The Halogen Lamp is controllably turned ON and OFF to maintain the Fuser control temperature.

6.3.3 Warm-up of Fuser

The Halogen Lamp is lit up (turned ON) simultaneously with the start of warm-up of the Fuser. When the temperature of the HEAT ROLL surface (detected temperature of THERMISTER) reaches the Fuser control temperature (standby temperature), the warm-up of the Fuser is ended.

During warm-up of the Fuser, the MAIN MOTOR is in operation.

6.3.4 Fuser Temperature in Ready State

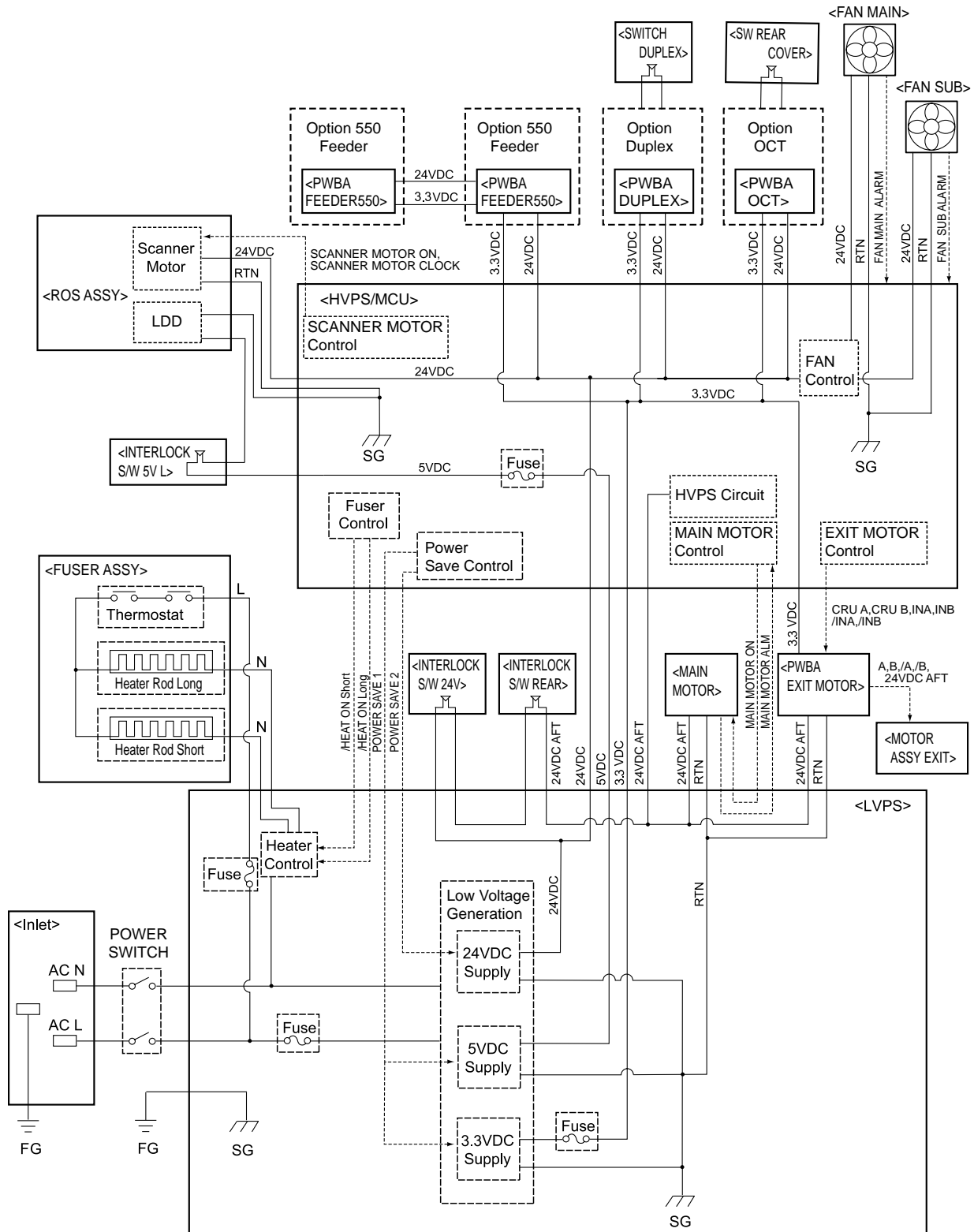
180 to 185°C in Ready (standby) state (During operation, it is higher than 185°C.)

6.3.5 Fuser Temperature when Abnormal Temperature (higher or lower) is Detected

Higher temperature: 250°C

Lower temperature: 130°C

7. Schematic Diagram of Safety System



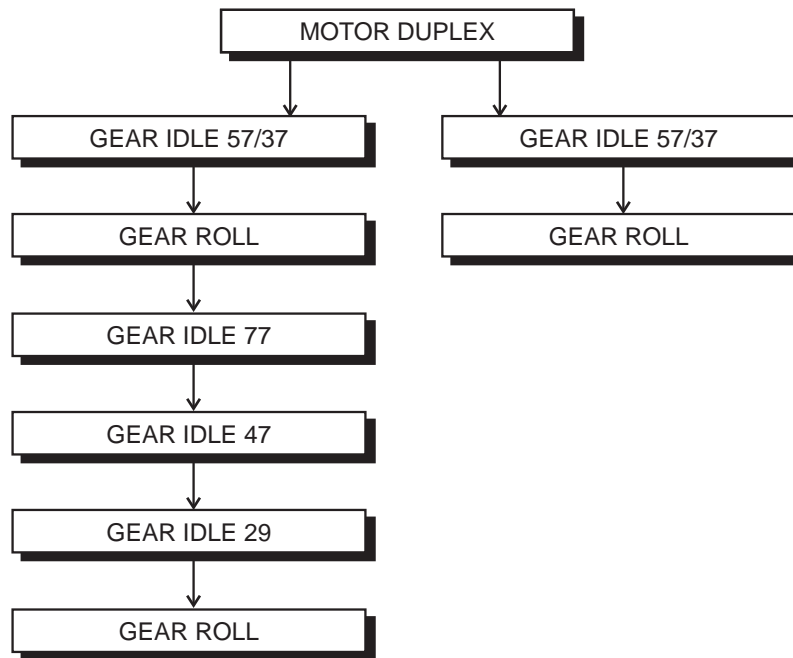
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Duplex Option

8. Driving Force Transmission Path

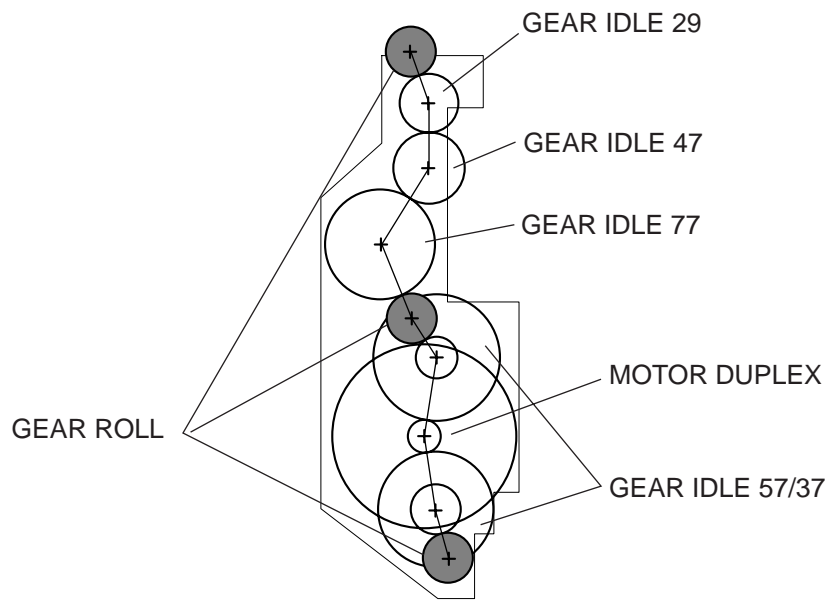
8.1 MOTOR DUPLEX

The rotating force of the MOTOR DUPLEX is transmitted via various gears to components that need mechanical driving force as shown in the flow given below.



J26611AA

8.2 Gear Layout

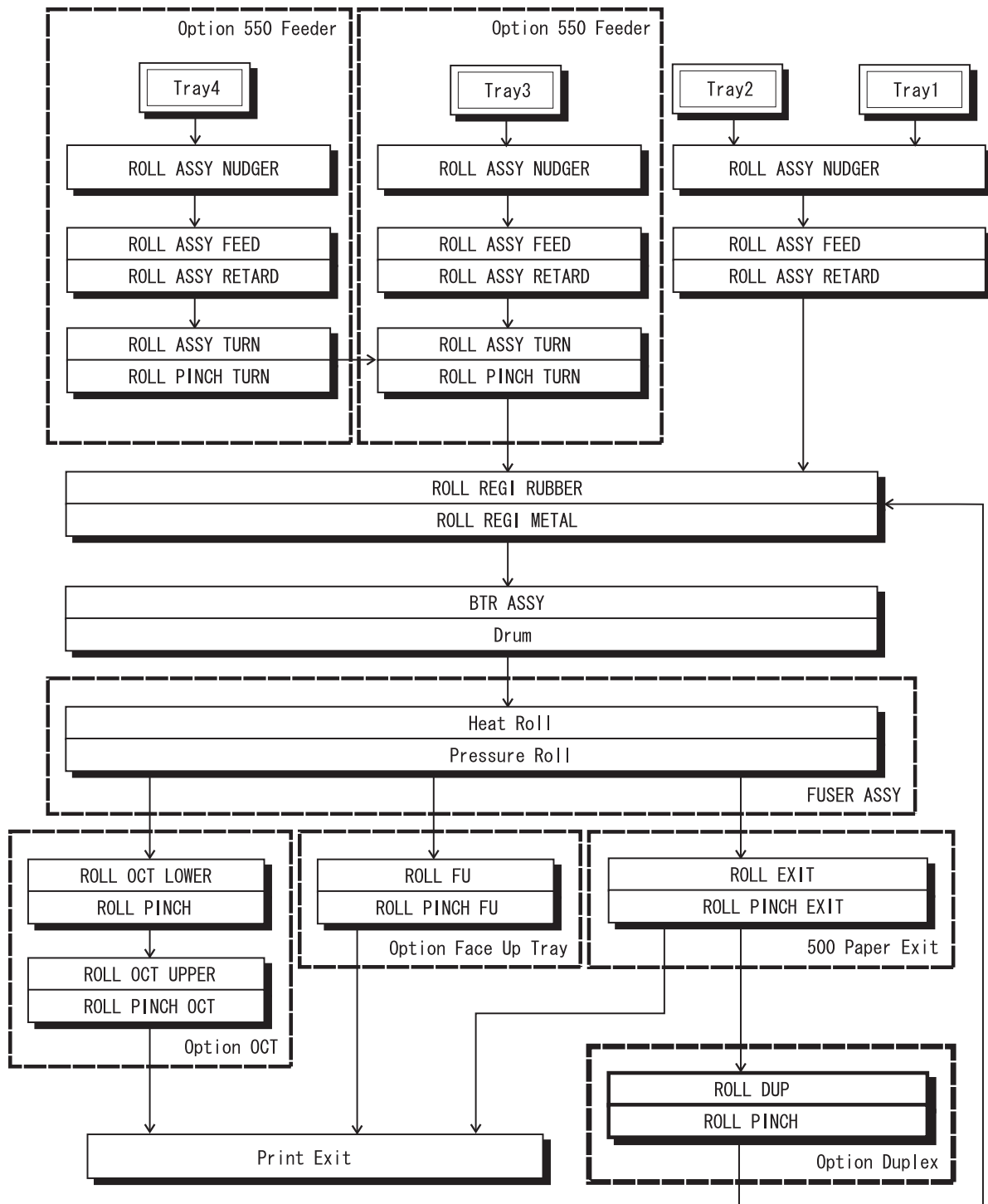


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9. Paper Transport

9.1 Paper Transport Path

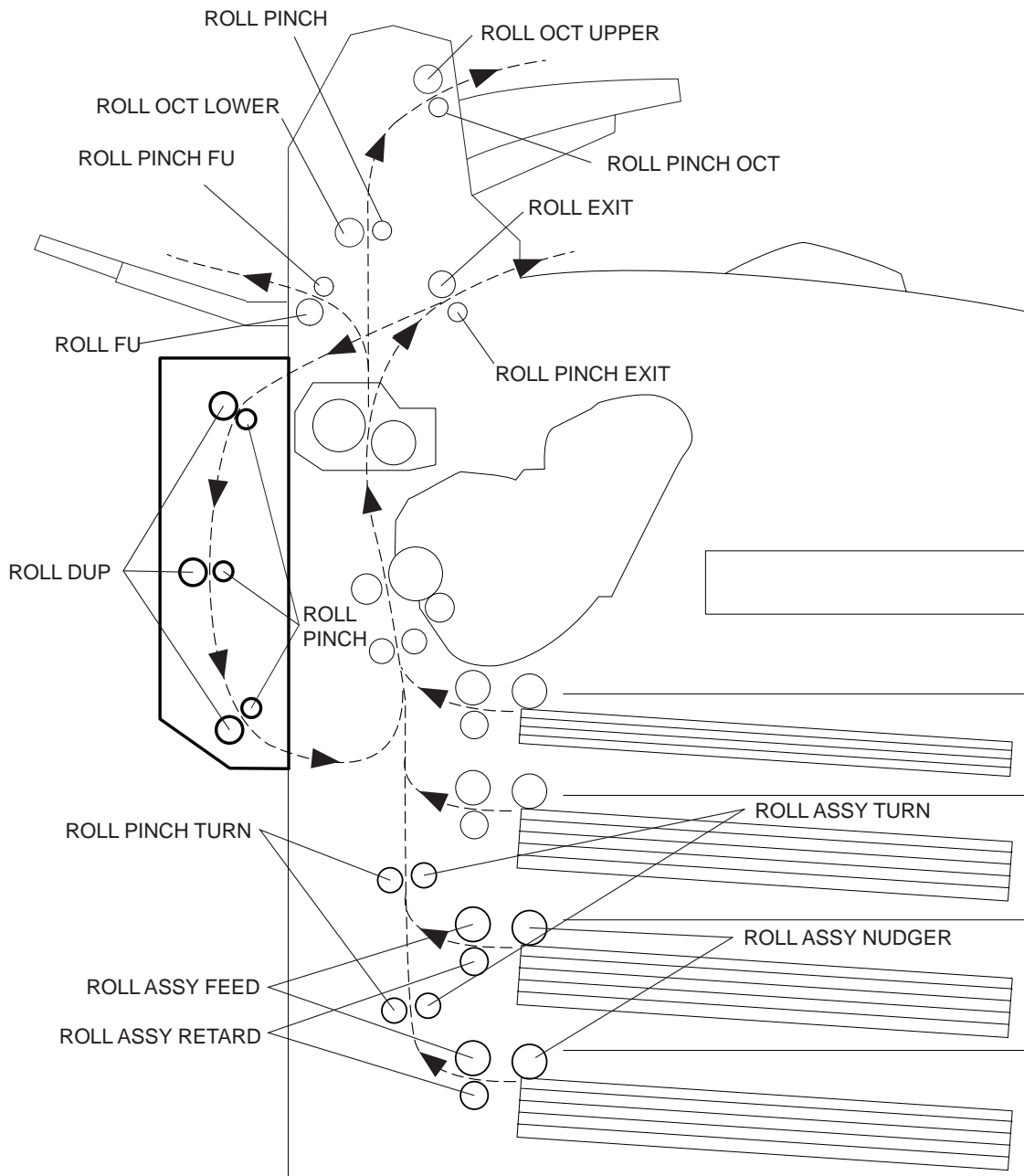
When the Option Duplex has been added, the paper is transported in the sequence given below.



J26613AA

9.2 Layout of Paper Transport Path

Main components regarding the transport of the paper when the Option Duplex is installed are given below.



JG6614AA

10. Actions of Main Functional Components

The Option Duplex is available as an optional unit for JIGEN laser printer. Duplex printing is enabled by mounting this optional unit to the rear side of the base engine.

SWITCH DUPLEX

This switch detects that the HSG LOWER DUP and COVER HSG DUP are closed.

SENSOR DUP

This sensor detects the presence or absence of paper in the Duplex.

FAN DUPLEX

This fan vents air within the Duplex and takes in outside air, to prevent abnormal temperature rise in the Duplex

ROLL DUP

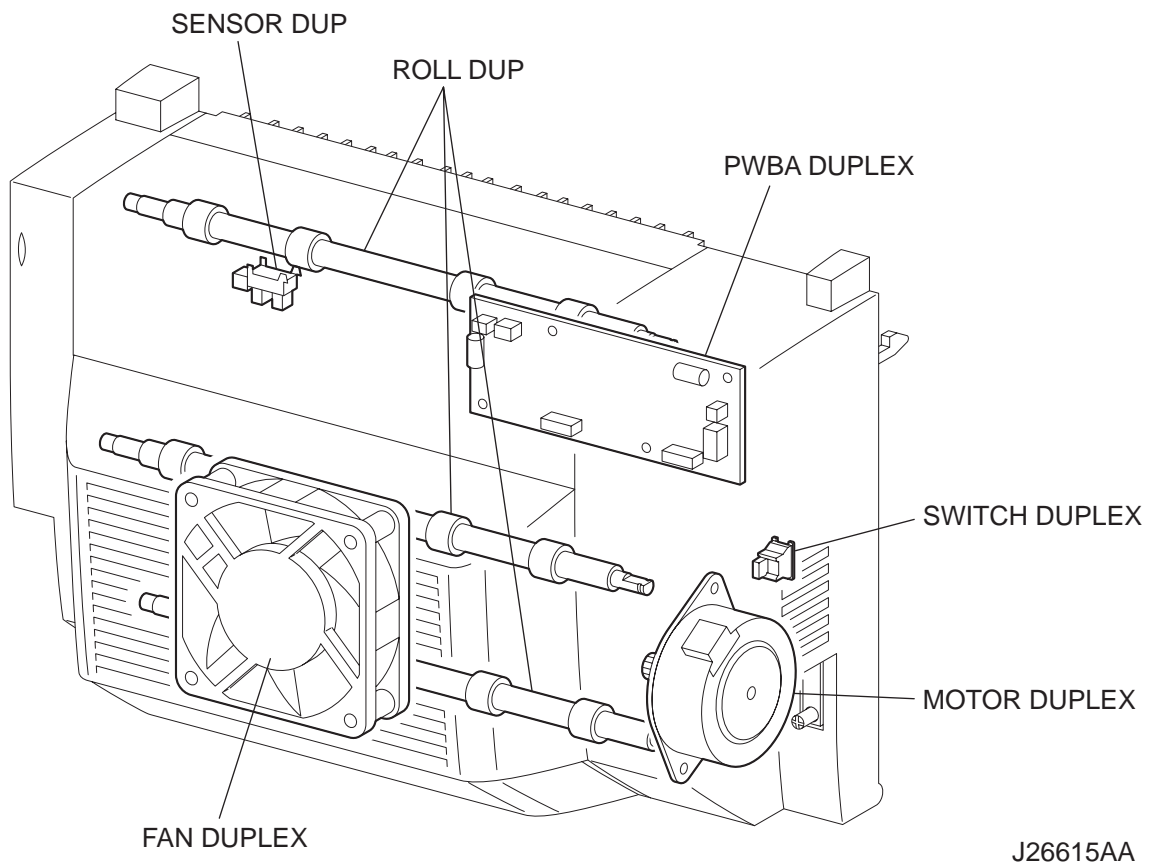
This roll feeds the paper having the printed first surface back into the printer through the Duplex, to print on the second surface.

PWBA DUPLEX

A CPU is installed in the PWBA DUPLEX. This CPU receives instructions from HVPS/MCU and from sensors and switches, and controls feeding operation in the PWBA DUPLEX. A flash ROM is used with the CPU installed in the PWBA DUPLEX, so that the firmware can be rewritten through communications.

MOTOR DUPLEX

This motor gives the driving force the three ROLL DUPs, which transport the paper into the printer.

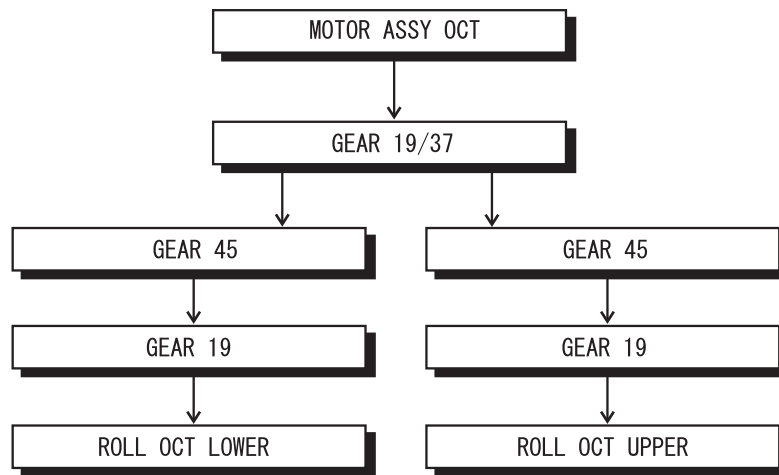


OCT Option

11. Driving Force Transmission Path

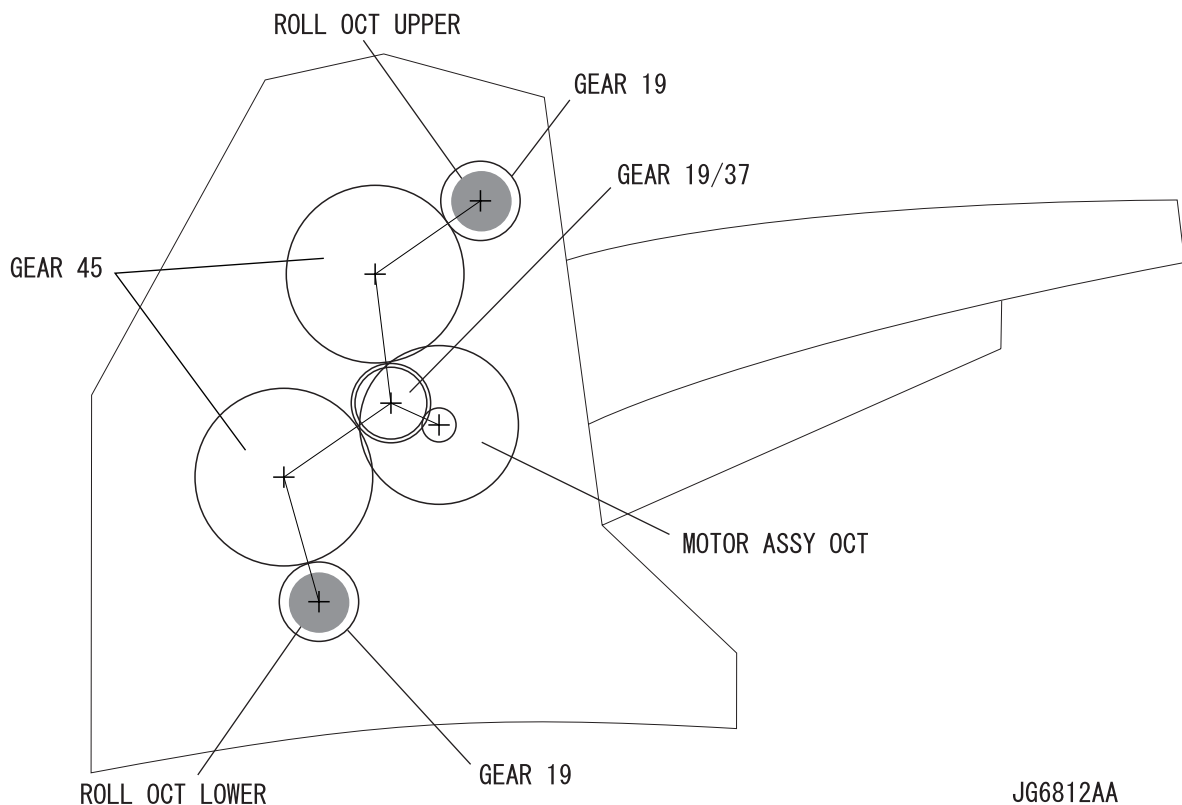
11.1 MOTOR ASSY OCT

The rotating force of the MOTOR ASSY OCT is transmitted via various gears to components that need mechanical driving force as shown in the flow given below.



JG6811AA

11.2 Gear Layout

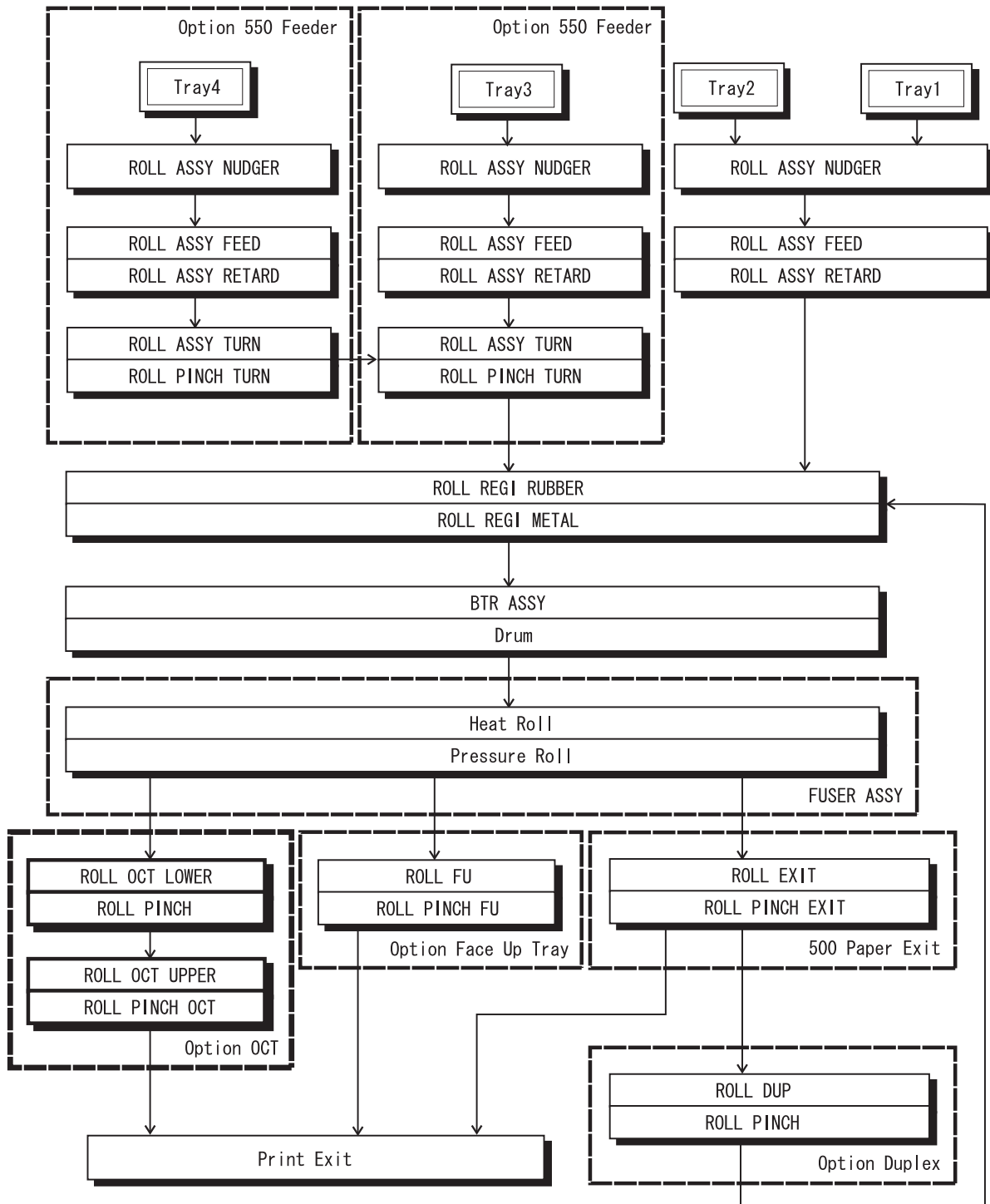


JG6812AA

12. Paper Transport

12.1 Paper Transport Path

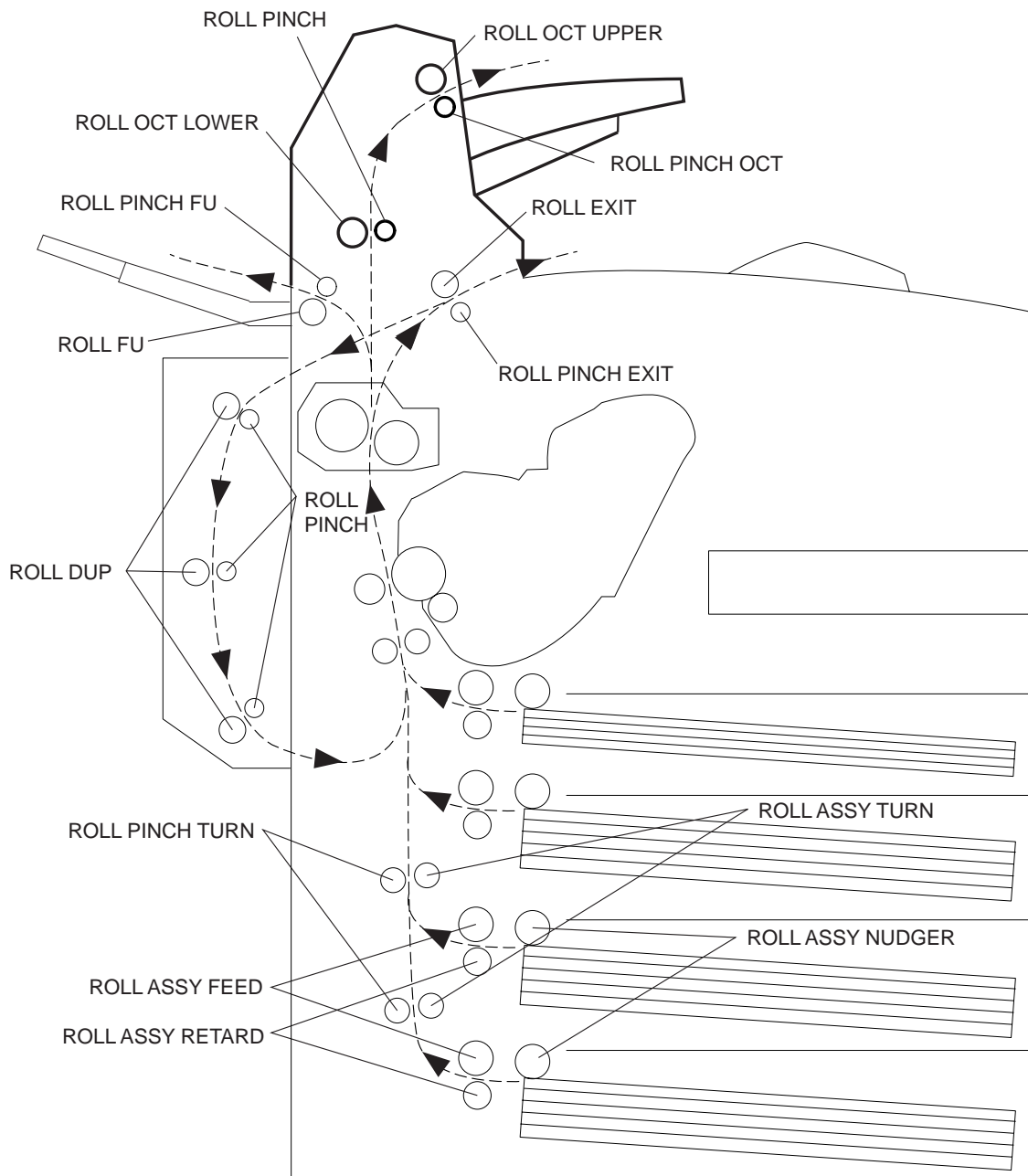
When the Option OCT has been added, the paper is transported in the sequence given below.



JG6813AA

12.2 Layout of Paper Transport Path

Main components regarding the transport of the paper when the Option OCT is installed are given below.



JG6814AA

13. Actions of Main Functional Components

The Option OCT is available as an optional unit for JIGEN laser printer. Offset output is enabled by mounting this optional unit to the top of the 500 Paper Exit.

MOTOR ASSY OCT

This motor gives the driving force to the ROLL OCT LOWER and ROLL OCT UPPER, which transport the printed paper to the tray of the OCT.

MOTOR ASSY OFFSET

This motor gives the driving force to the CHUTE OFFSET ASSY via the GEAR CAM.

SOLENOID ASSY GATE

This solenoid switches between the paper paths to the standard and OCT paper output trays. When the SOLENOID ASSY GATE operates, the GATE OCT EXIT is operated by the LINK GATE OCT pushed downward against the spindle of the SOLENOID ASSY GATE. Thus, the paper output direction is switched to the OCT paper output tray.

PWBA OCT

A CPU is installed in the PWBA OCT. This CPU receives instructions from HVPS/MCU and information from sensors and switches, and controls the operation for transporting the paper through the OCT.

S/W REAR COVER

This switch detects that the COVER REAR is closed.

SENSOR OCT

This sensor detects the presence or absence of paper in the OCT.

Sensor Full Stack OCT This sensor is located on the PWBA OCT, and detects that the paper output tray is full, using the ACTUATOR FULL STACK.

Sensor Offset

This sensor is located on the PWBA OCT, and detects an offset operation, using the Actuator in the CHUTE OFFSET.

ROLL OCT LOWER

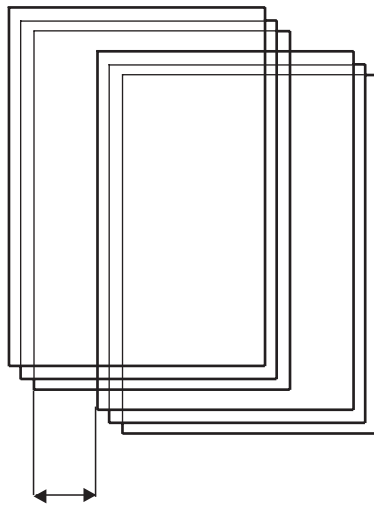
This roll transports the printed paper sent out from the Fuser, to the ROLL UPPER OCT.

ROLL OCT UPPER

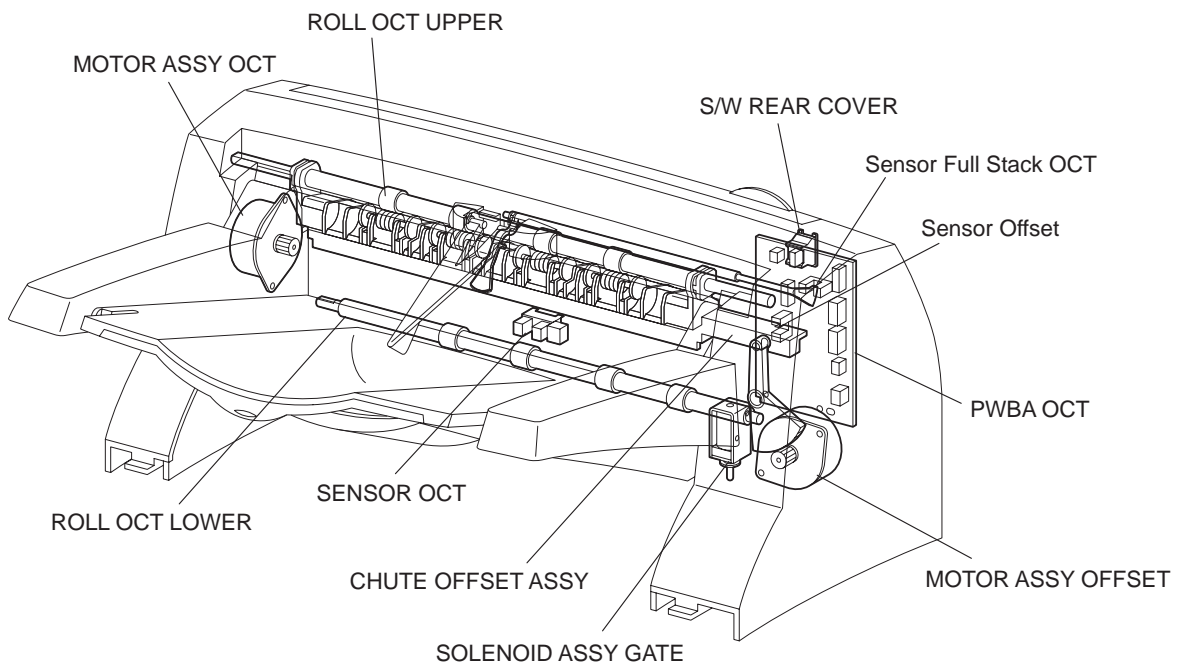
This roll discharges the printed paper sent out from the ROLL OCT LOWER, to the tray of the OCT.

CHUTE OFFSET ASSY

This is driven by the MOTOR ASSY OCT and GEAR CAM. During paper output, it moves right and left to perform offset operation. The standard distance between offset paper and non-offset paper is 25mm. The Offset Deal (the closest distance between a batch of offset sheets and a batch of non-offset sheets) should be more than 10mm.



JG6805AA



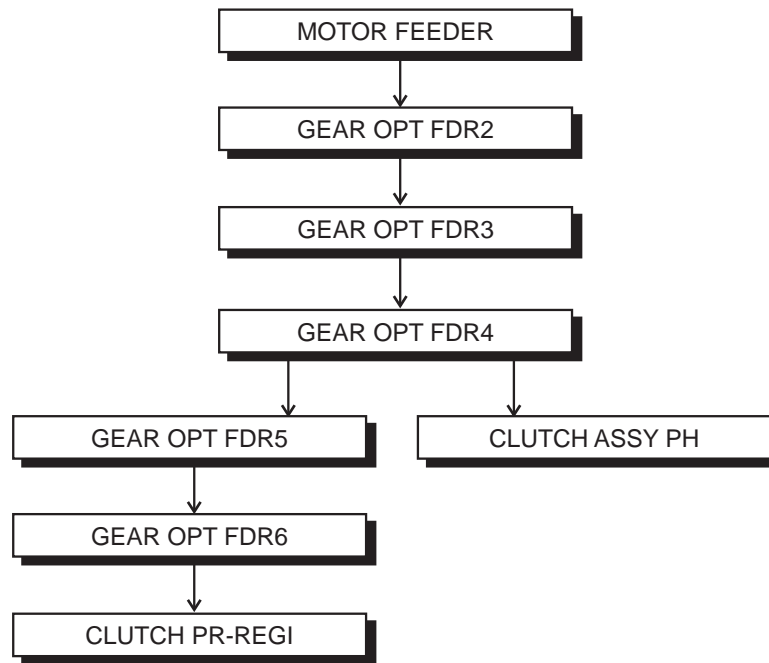
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550 Sheet Feeder Option

14. Driving Force Transmission Path

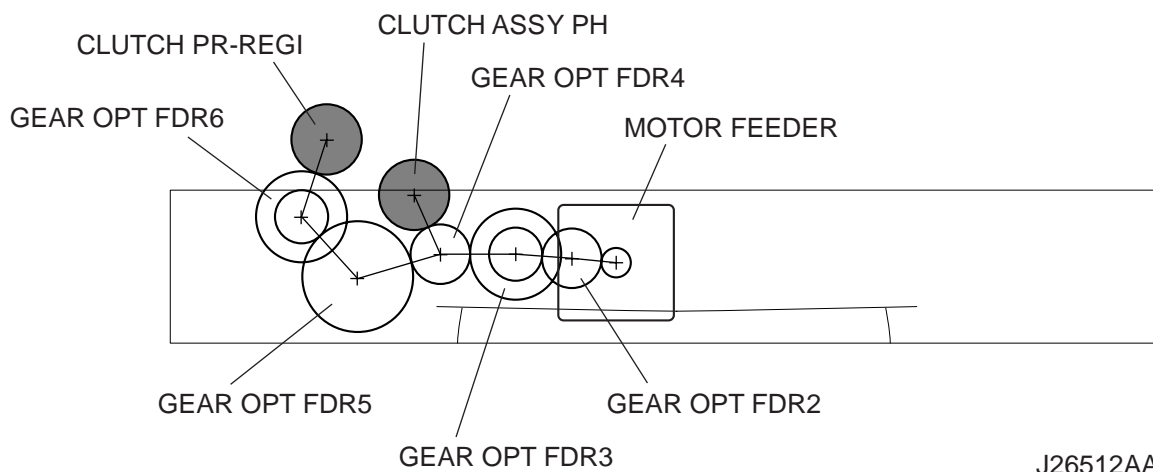
14.1 MOTOR FEEDER

The rotating force of the MOTOR FEEDER is transmitted via various gears to components that need mechanical driving force as shown in the flow given below.



JG6511AA

14.2 Gear Layout

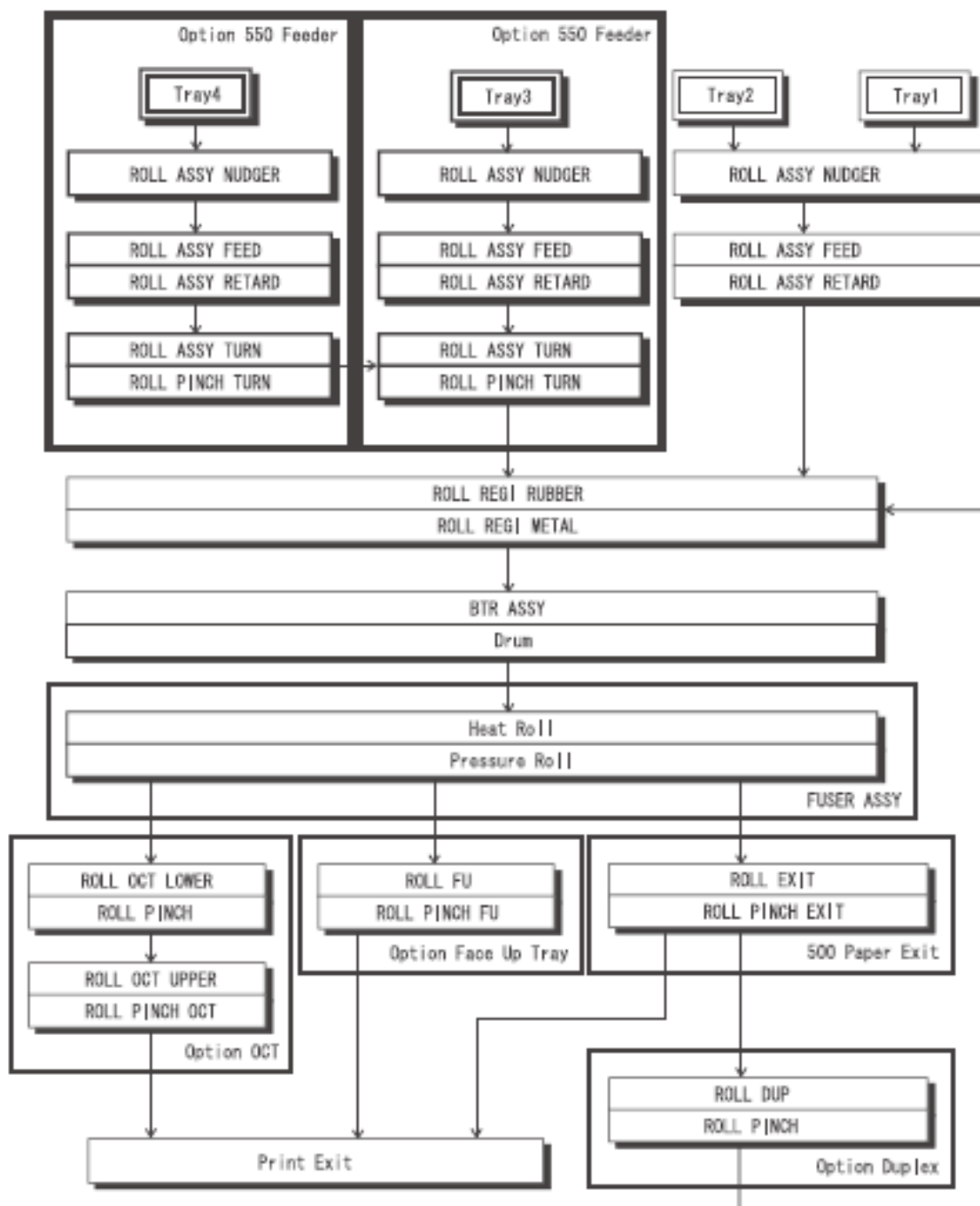


J26512AA

15. Paper Transport

15.1 Paper Transport Path

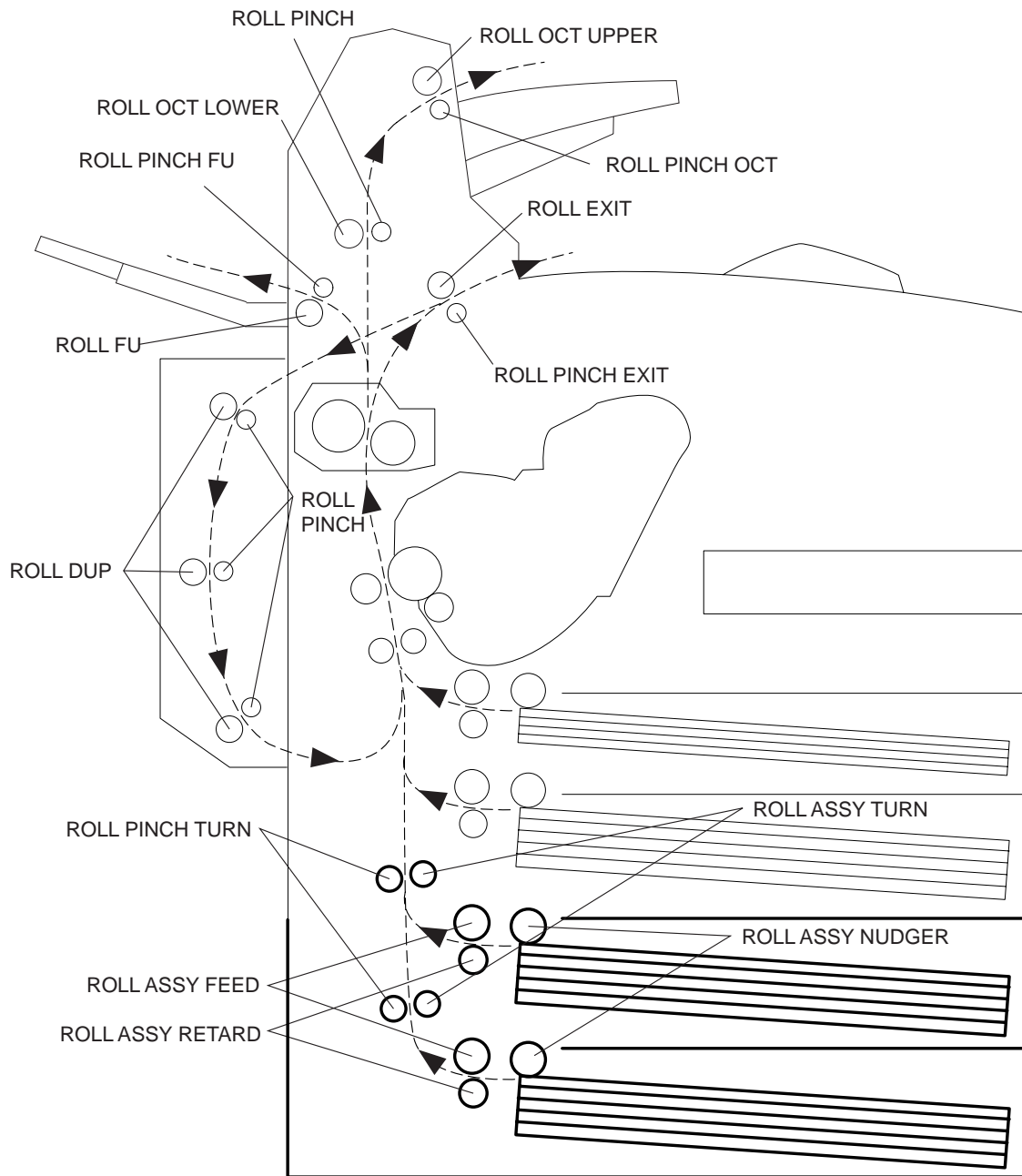
When the Option 550 Feeder has been added, the paper is transported in the sequence given below.



J06513AA

15.2 Layout of Paper Transport Path

Main components regarding the transport of the paper when the Option 550 Feeder is installed are given below.



JG6514AA

16. Actions of Main Functional Components

The Option 550 Feeder is available as an optional feeder for JIGEN laser printer. The Paper Cassette installed in the optical feeder is identical in function with the standard Paper Cassette used by the base engine, and so the description of the Paper Cassette is omitted here.

OPT ASSY SIZE

A switch for setting the size of paper supplied from Paper Cassette is mounted. A signal indicating the set size is transmitted as a voltage to the MCU side of HVPS/MCU.

ACTUATOR NO PAPER

If paper runs out in the Paper Cassette, the ACTUATOR NO PAPER drops and the flag of the ACTUATOR NO PAPER that shielded the detection portion of the SENSOR NO PAPER moves off the detection portion. Thus, the light is transmitted.

SENSOR NO PAPER

The presence or absence of paper in the Paper Cassette is detected by the position of the ACTUATOR NO PAPER. This is converted into an electrical signal. If the detection portion is shielded (i.e., there is paper), /NO PAPER FEED 550 SNR ON signal is turned OFF.

ACTUATOR LOW PAPER

When paper is low in the Paper Cassette, the arm of the ACTUATOR LOW PAPER is pushed up by the PLATE ASSY BTM. The flag of the ACTUATOR LOW PAPER that shielded the detection portion of the SENSOR LOW PAPER moves off the detection portion. Thus, the light is transmitted.

SENSOR LOW PAPER

The state that paper is low in the Paper Cassette is detected by the position of the ACTUATOR LOW PAPER. This is converted into an electrical signal. If the detection portion is shielded (i.e., paper is high), /LOW PAPER FEED 550 SNR ON signal is turned OFF.

550 FEEDER OPTION

This is a mechanism for supplying paper from the Paper Cassette into the printer. The driving force from the MOTOR FEEDER is transmitted via the CLUTCH ASSY PH to the ROLL ASSY FEED and ROLL ASSY NUDGER. Thus, the paper is transported. When the ROLL ASSY NUDGER picks up some sheets of paper and the paper gets low, the position of the ROLL ASSY NUDGER drops accordingly. The lowered ROLL ASSY NUDGER pushes down the lock lever of the PLATE ASSY BTM, releasing it. The PLATE ASSY BTM is pushed up by a spring, and thus the paper is raised. The raised paper then raises the SUPPORT NUDGER. The SUPPORT NUDGER disengages from the lock lever of the PLATE ASSY BTM. The PLATE ASSY BTM stops moving upward.

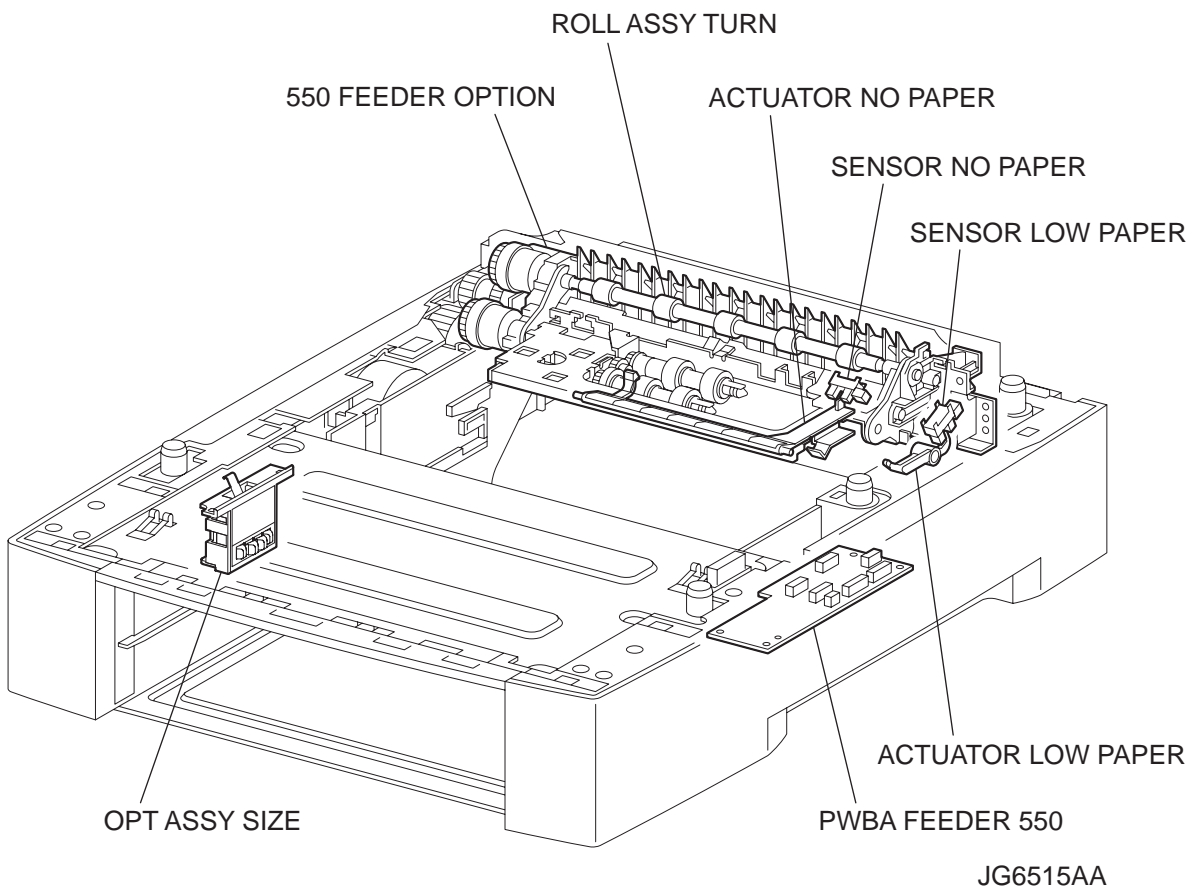
ROLL ASSY TURN

This roll conveys the paper into the printer after the paper is transported by the ROLL ASSY FEED and ROLL ASSY NUDGER. The driving power from the

MOTOR FEEDER is transmitted to the ROLL ASSY via the CLUTCH PR-REGI. This conveys the paper into the printer together with ROLL PINCH TURN.

PWBA FEEDER 550

A CPU is installed in the PWBA FEEDER 550. This CPU receives instructions from HVPS/MCU and from sensors and switches, and controls feeding operation in the Option 550 Feeder. A flash ROM is used with the CPU installed in the PWBA FEEDER, so that the firmware can be rewritten through communications.



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Chapter 7 Wiring

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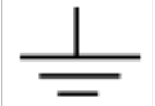
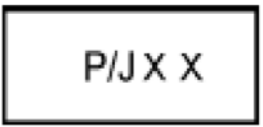
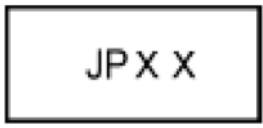
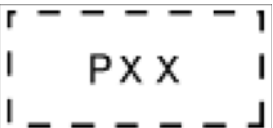
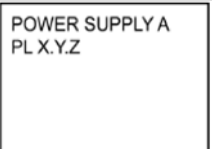
Chapter 7 Wiring

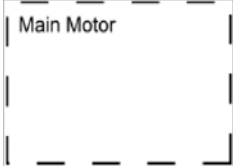



Engine

1. Connection Wiring Diagram

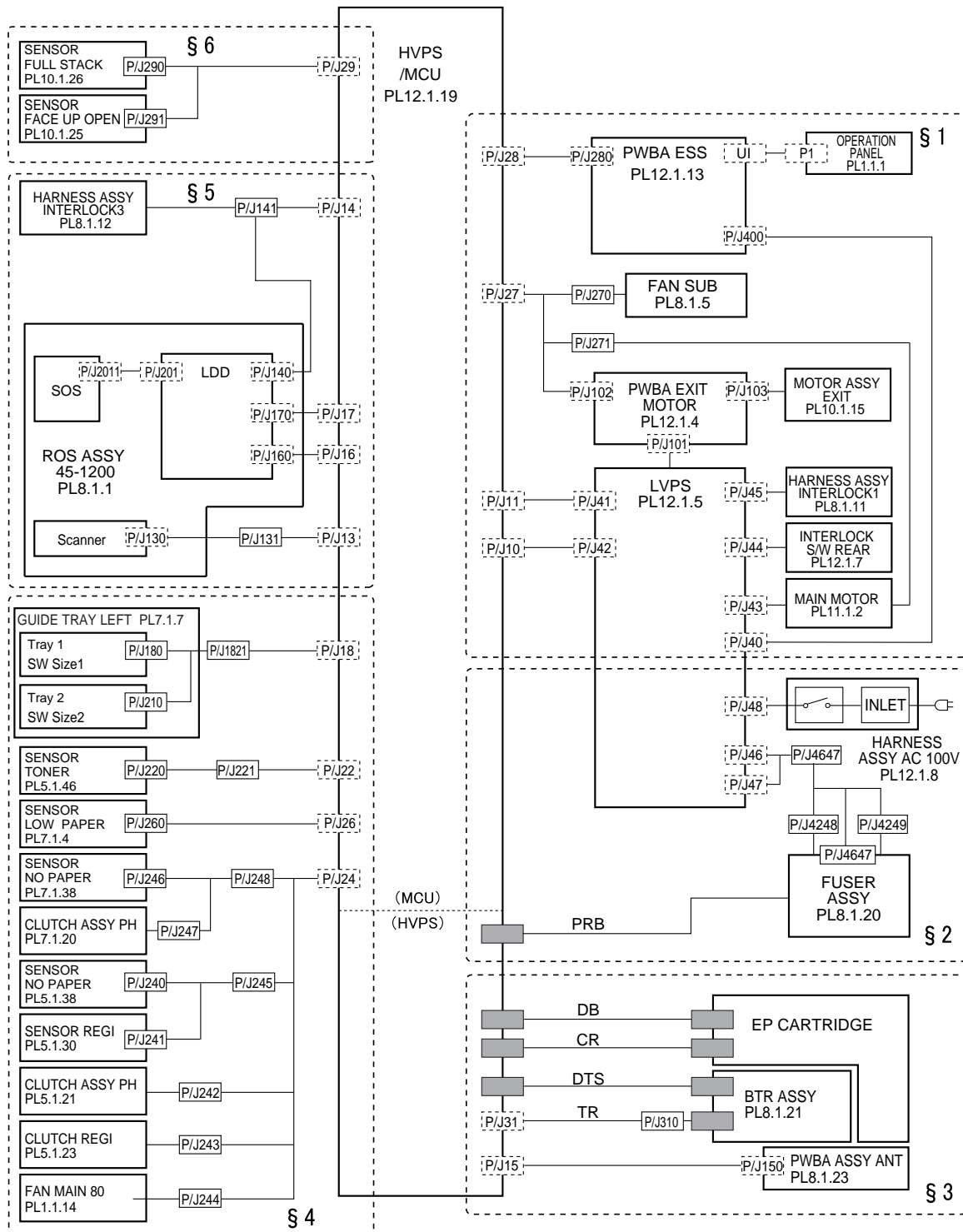
1.1 Symbols in the General Connection Wiring Diagram

The symbols in the general connection wiring diagram are described below.

Symbols	Description
	Represents an interconnection between parts using wiring harness or wire.
	Represents an interconnection which differs according to the specifications.
	Represents an interconnection between parts using a conductive member such as a plate spring.
	Represents a connection between parts by tightening of a screw.
	Indicates a frame ground.
	Represents a connector. The connector No. is indicated inside the box.
	Represents a connection terminal with a plate spring on the printed circuit board. The connector (terminal) No. is indicated inside the box.
	Represents a connector directly connected to the printed circuit board. The connector No. is indicated inside the box.
	The box containing a part name represents a part. "PL X.Y.Z" indicates the item "Z" of the plate (PL) "X.Y" described in Chapter 5 "Parts List."

Symbols	Description
	<p>Represents a functional part within a part, and indicates the name of the functional part.</p>
	<p>Represents a section in "2. Interconnection Wiring Diagram of Parts," and indicates its section No.</p>
	<p>Represents a screw for fixing wiring harness and a conductive member such as a plate spring.</p>
	<p>Represents a conductive member such as a plate spring.</p>

1.2 General Wiring Diagram



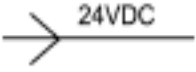

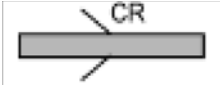
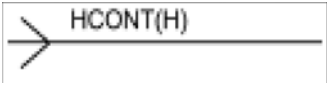





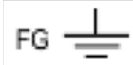
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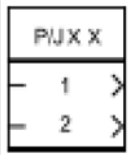
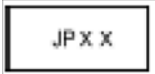
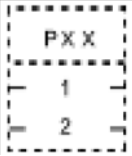



2. Interconnection Wiring Diagram of Parts

2.1 Instructions for the Use of the Interconnection Wiring Diagram of Parts

The symbols in the interconnection wiring diagram of parts are described below.

Note that the description of general symbols is omitted.

Symbols	Description
	Represents an interconnection between parts using wiring harness or wire, and indicates its signal name/contents. The arrow ">" or "<" on the line represents the direction of the signal.
	Represents an interconnection between parts using wiring harness or wire, which differs according to the specifications, and indicates its signal name/contents. The arrow ">" or "<" on the line represents the direction of the signal.
	Represents a interconnection between parts using a conductive member such as a plate spring, and indicates its signal name/ contents. The arrow ">" or "<" on the line represents the direction of the signal.
	Represents a function and a logical value (High (H) or Low (L)) of a signal when the function is activated. The voltage indicates a value when the signal is High. The arrow indicates the direction of the signal.
	Represents a function and a logical value (High (H) or Low (L)) of a signal when the function is in a detectable state. The voltage indicates a value when the signal is High. The arrow indicates the direction of the signal.
	Represents a connection between lead wires.
	Represents a connection between parts by tightening of a screw.
	Represents a connection between "A" and "A".
24VDC	The DC voltage indicates an approximate value measured when the negative side is connected to a signal ground (SG).
	Indicates a signal ground (SG).
	Indicates a frame ground (FG).

Symbols	Description
RTN	Indicates a return.
	<p>Represents a connector. The connector and PIN Nos. are shown at the upper and lower parts respectively.</p> <p>"P,-" indicates the plug side of the connector.</p> <p>"J,>" indicates the jack side of the connector.</p>
	Represents a connection terminal with a plate spring on the printed circuit board. The connector No. is indicated inside the box.
	Represents a connector directly connected to the printed circuit board. The connector No. is indicated inside the box.
	<p>Represents a part.</p> <p>"PL X.Y.Z" indicates the item "Z" of the plate (PL) "X.Y" described in Chapter 5 "Parts List."</p>
	Represents a functional part within a part, and indicates the name of the functional part.
	Indicates a reference item associated with the section.

2.2 Configuration of the Interconnection Wiring Diagram of Parts

The interconnection wiring diagram is divided into 6 sections (1 - 6) indicating details of the interconnections of parts.

1 HARNESS ASSY INTERLOCK1, INTERLOCK S/W REAR, MAIN MOTOR 45, FAN SUB, MOTOR ASSY EXIT

- Connections of HARNESS ASSY INTERLOCK1 and INTERLOCK S/W REAR with LVPS
- Connections of MAIN MOTOR 45 with LVPS
- Connections of FAN SUB with HVPS/MCU
- Connections of MOTOR ASSY EXIT with PWBA EXIT MOTOR
- Connections of HVPS/MCU with LVPS, PWBA EXIT MOTOR and PWBA ESS

2 FUSER ASSY, POWER SWITCH

- Connections of FUSER ASSY with LVPS and GUIDE ASSY CRU R
- Connections of POWER SWITCH with LVPS

3 EP Cartridge, HOUSING ASSY BTR J2

- Connections of EP Cartridge with GUIDE ASSY CRU R
- Connections of HOUSING ASSY BTR J2 with GUIDE ASSY CRU R
- Connections of PWBA ASSY ANT with HVPS/MCU
- Connections of GUIDE ASSY CRU R with HVPS/MCU

4 150 Paper Feeder, 550 Paper Feeder, FAN MAIN 80

- Connections of GUIDE TRAY LEFT with HVPS/MCU
- Connections of SENSOR NO PAPER with HVPS/MCU
- Connections of SENSOR REGI with HVPS/MCU
- Connections of CLUTCH ASSY PH with HVPS/MCU
- Connections of CLUTCH REGI with HVPS/MCU
- Connections of SENSOR LOW PAPER with HVPS/MCU
- Connections of SENSOR NO PAPER with HVPS/MCU
- Connections of CLUTCH ASSY PH with HVPS/MCU
- Connections of FAN MAIN 80 with HVPS/MCU
- Connections of SENSOR TONER with HVPS/MCU

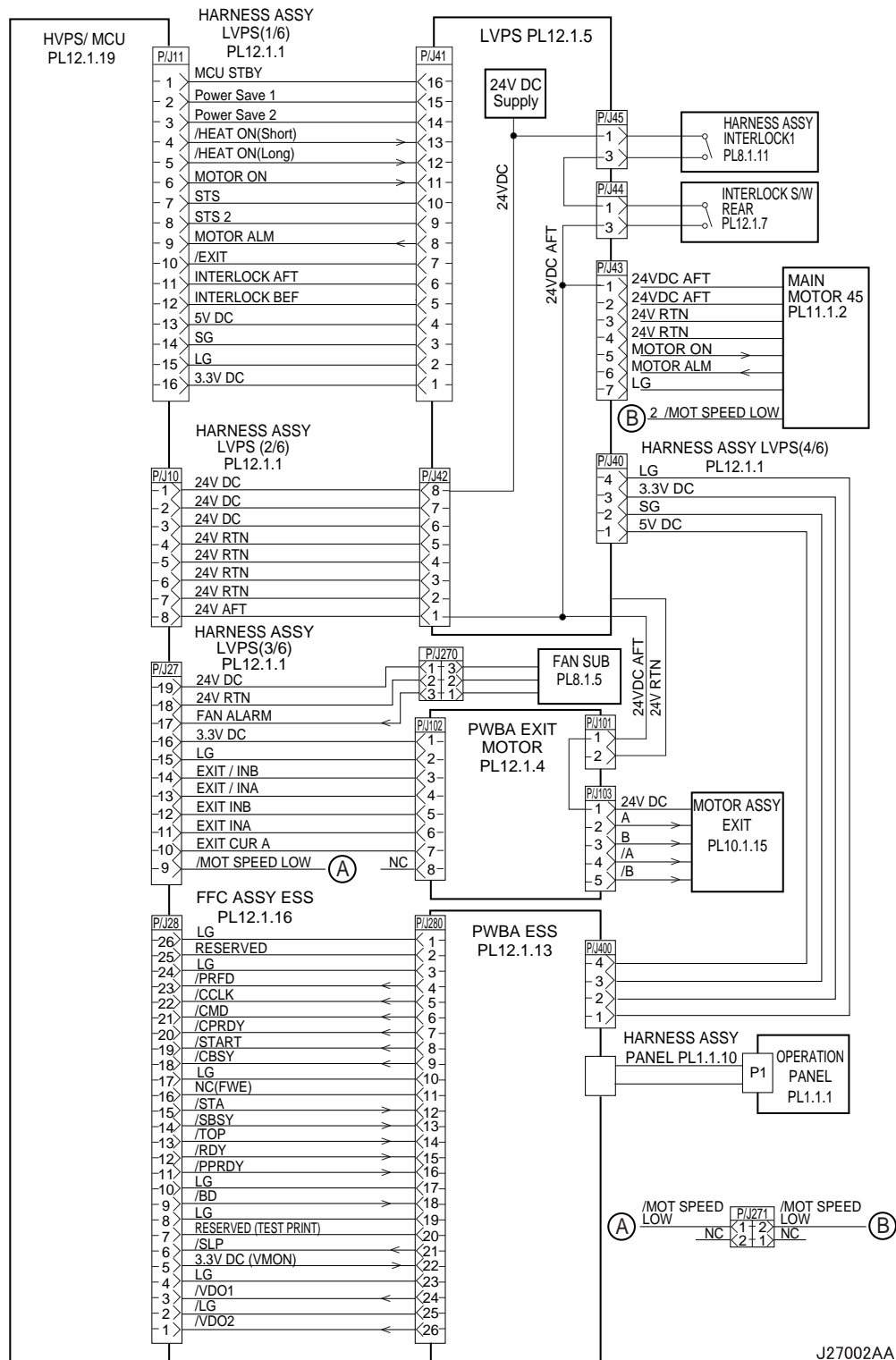
5 ROS ASSY 45-1200, HARNESS ASSY INTERLOCK3

- Connections of ROS ASSY 45-1200 with HVPS/MCU
- Connections of HARNESS ASSY INTERLOCK3 with HVPS/MCU

6 500 Paper Exit

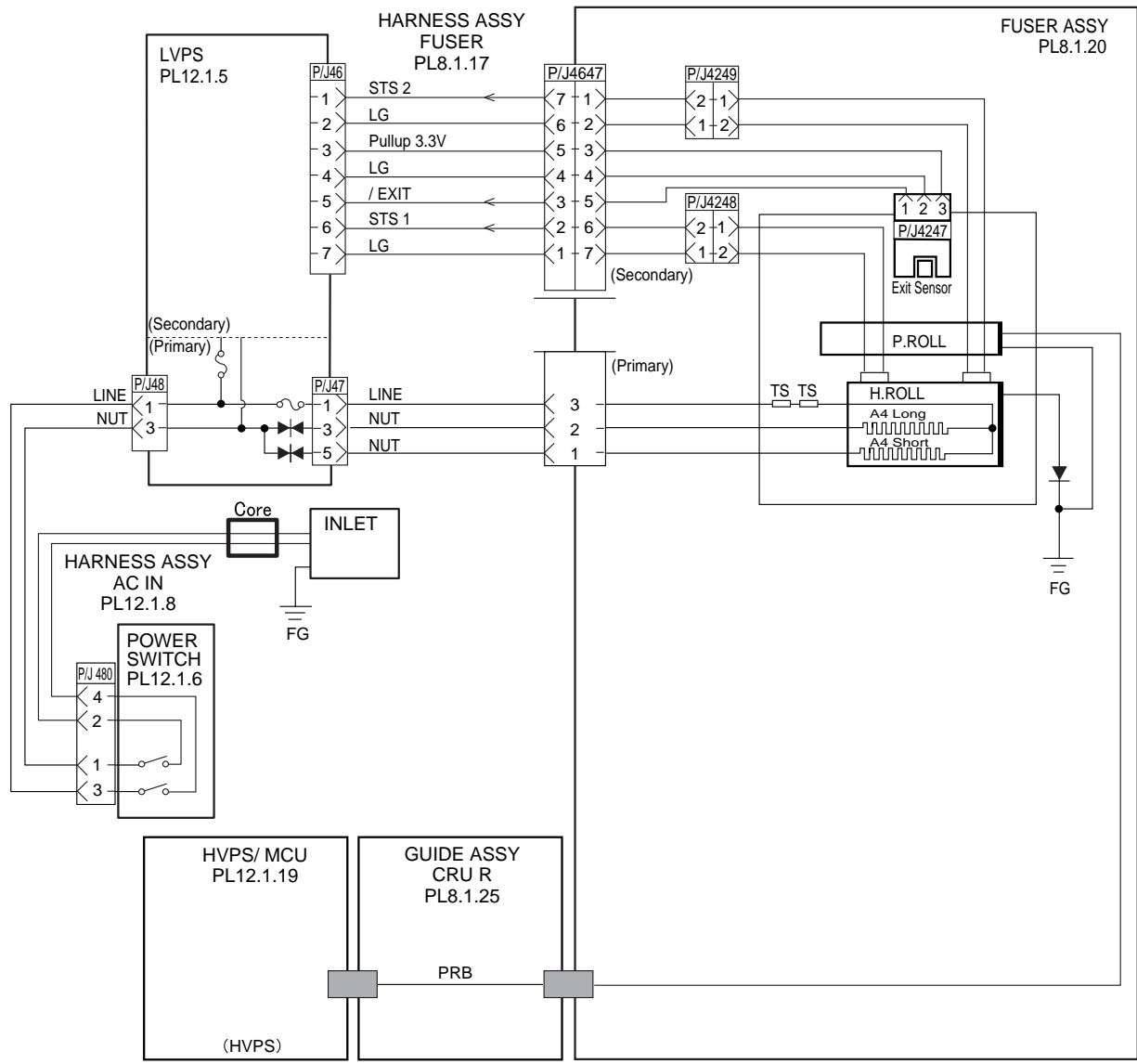
- Connections of HVPS/MCU with SENSOR FACE UP OPEN
- Connections of HVPS/MCU with SENSOR FULL STACK

1 HARNESS ASSY INTERLOCK1, INTERLOCK S/W REAR, MAIN MOTOR 45, FAN SUB, MOTOR ASSY EXIT



Signal line name	Description
/HEAT ON	AC power-supply control signal for Heater Rod. Low: ON/High: OFF
MOTOR ON	Control signal for MAIN MOTOR 45.
MOTOR ALM	Monitor signal for MAIN MOTOR 45.
INTERLOCK AFT	Signal indicating that the rear cover is open. This signal goes High when the front or rear cover is open.
INTERLOCK BEF	Signal indicating that the front cover is open. This signal goes High when the front cover is open.
FAN ALARM	FUN SUB monitor signal. If a trouble occurs, this signal goes High.
EXIT /INB	Excitation signal for EXIT MOTOR. Phase /B.
EXIT /INA	Excitation signal for EXIT MOTOR. Phase /A.
EXIT INB	Excitation signal for EXIT MOTOR. Phase B.
EXIT INA	Excitation signal for EXIT MOTOR. Phase A.
EXIT CUR A	Current-switching signal for EXIT MOTOR.
/MOT SPEED LOW	Half-speed signal for MAIN MOTOR.
A and B	Current output to each winding of EXIT MOTOR. Phases A and B.
/A and /B	Current output to each winding of EXIT MOTOR. Phases A and B.
/PRFD	Prefeed signal. This is effective only when /RDY is Low.
/CCLK	Clock signal. This is sent out simultaneously with /STA or /CMD.
/CMD	Command signal. When /CBSY is Low, it is sent out from the controller in synchronism with /CCLK.
/CPRDY	Ready signal for the controller power supply. This signal goes Low when the controller power supply is ON and, at the same time, initialization of the CPU is completed. When a trouble occurs with the CPU, the signal goes High.
/START	Print start signal. This is effective only when /RDY is Low.
/CBSY	Command busy signal. This goes Low when /CMD is sent out (except when /SBSY is Low or /PPRDY is High).
/STA	Status signal. Status is sent in synchronism with /CCLK when /SBSY is Low.
/SBSY	Status busy signal. This signal is Low when the printer is sending /STA (except when /CBSY is Low or /CPRDY is High).
/TOP	Vertical sync signal for image data. This is periodically sent out when ROS MOTOR is in operation.
/RDY	Ready signal. This signal is Low in a standby state where reception of /START is awaited.
/PPRDY	Ready signal for the printer power supply. This goes Low when the printer power supply is turned on and initialization of the CPU is completed. This signal goes High when the MCP detects an error.
/BD	Horizontal sync signal for image data. This is periodically sent out when ROS MOTOR is in operation.
/SLP	Control signal for LVPS. This goes Low in power saving mode.
/VDO1	Image data signal. This is sent out in synchronism with /TOP and /BD. This signal goes High (White) for other than effective data.
/VDO2	

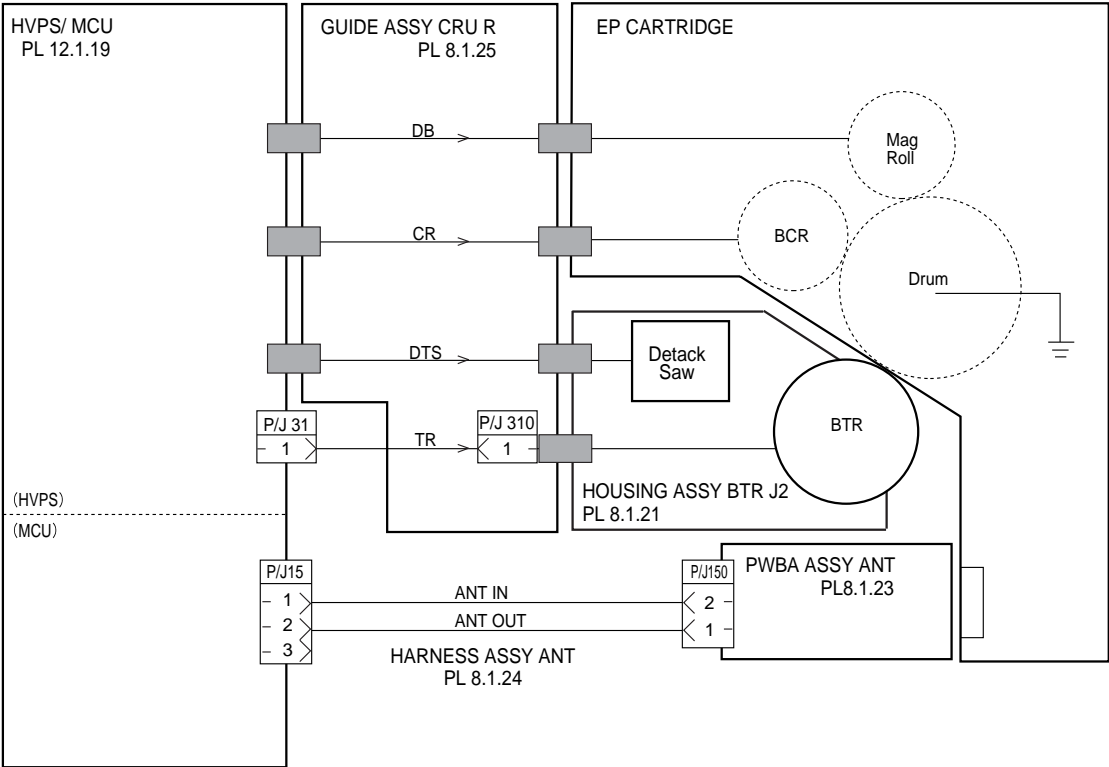
2 FUSER ASSY, POWER SWITCH



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Signal line name	Description
/EXIT	Signal from Exit Sensor. This signal goes Low when light is received.
STS	Temperature monitor signal (analog signal) from Temperature Sensor (Thermistor). It detects the temperature on the surface of Heat Roll.
PRB	Output from HVPS which applies a high voltage to Pressure Roll.

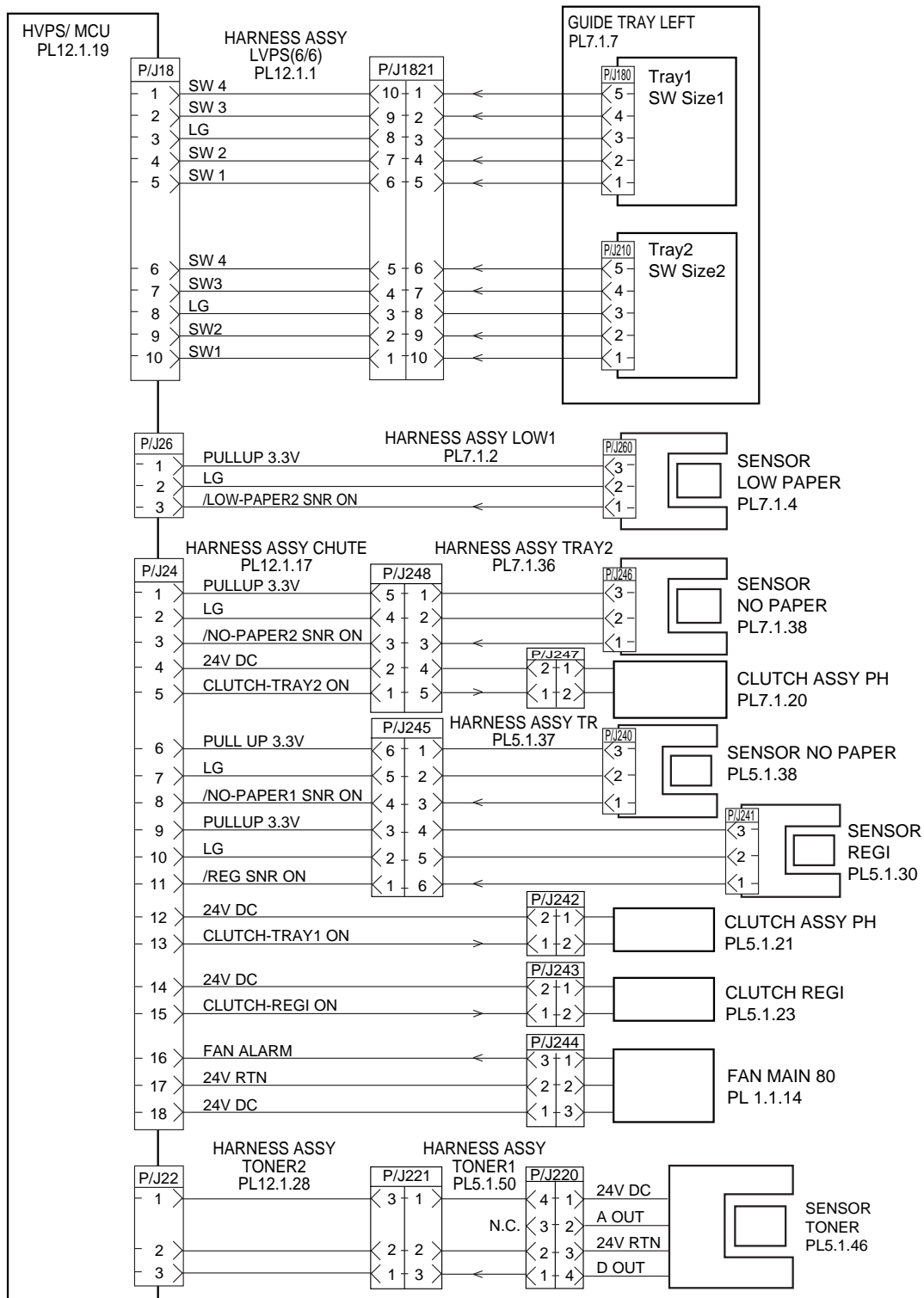
3 EP Cartridge, HOUSING ASSY BTR J2



J27004AA

Signal line name	Description
DB	Output from HVPS to Mag Roll (Development bias)
CR	Output from HVPS to BCR
DTS	Output from HVPS to Detack Saw
TR	Output from HVPS to BTR

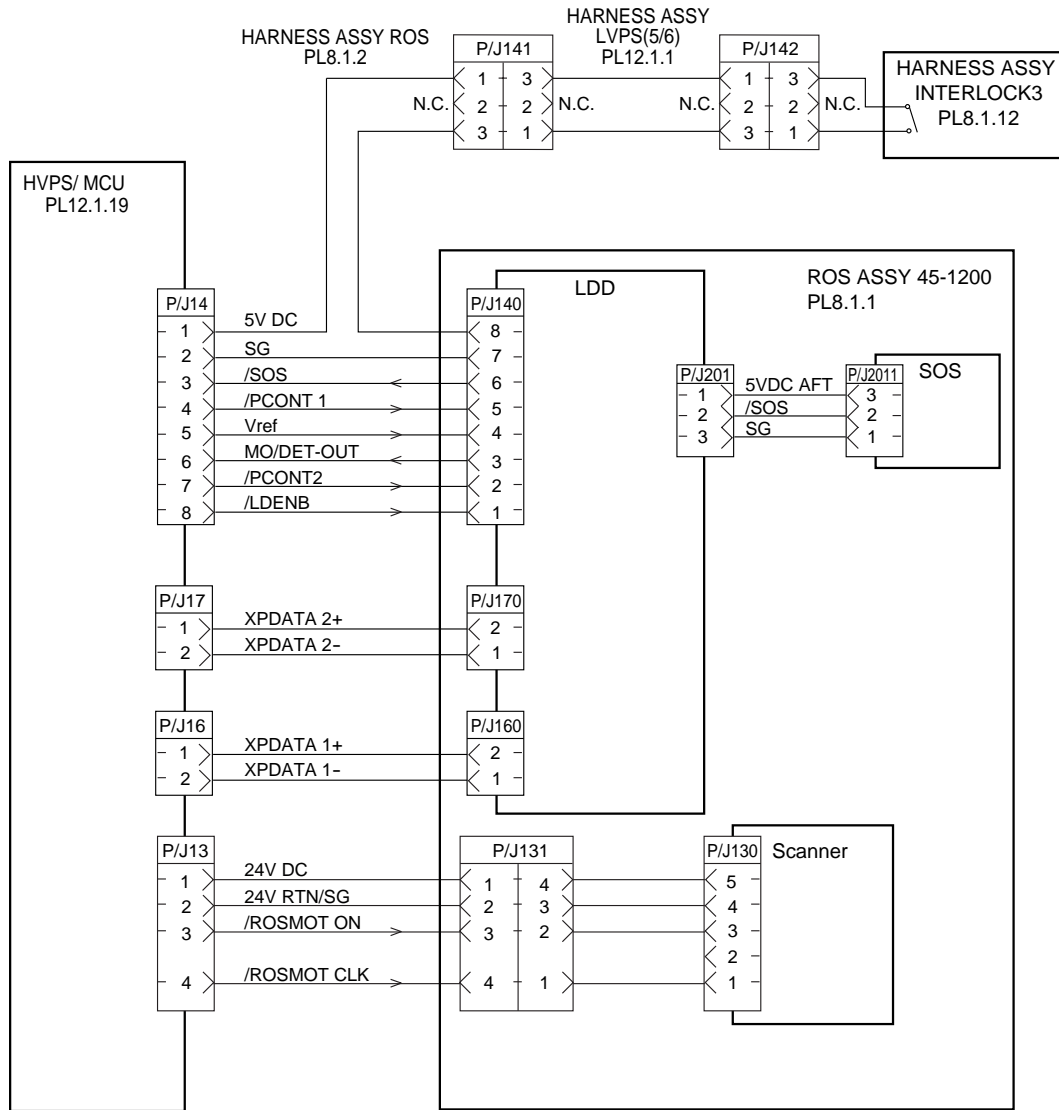
4 150 Paper Feeder, 250/550 Paper Feeder, FAN MAIN 80



J27005AA

Signal line name	Description
/LOW-PAPER2 SNR ON	Signal from SENSOR LOW PAPER. This signal goes Low when light is received.
/NO-PAPER2 SNR ON	Signal from SENSOR NO PAPER of Tray2. This signal goes Low when light is received.
CLUTCH-TRAY2 ON	Control signal for CLUTCH ASSY PH of Tray2. Low: ON / High: OFF
/NO-PAPER1 SNR ON	Signal from SENSOR NO PAPER of Tray1. This signal goes Low when light is received.
/REG SNR ON	Signal from SENSOR REGI. This signal goes Low when light is received.
CLUTCH-TRAY1 ON	Control signal for CLUTCH ASSY PH of Tray1. Low: ON / High: OFF
CLUTCH-REGI ON	Control signal for CLUTCH REGI. Low: ON / High: OFF
FAN ALARM	Fan monitor signal. This signal goes High if there is a trouble with FAN MAIN 80.
D OUT	Signal indicating detection of toner in the EP cartridge, from SENSOR TONER.

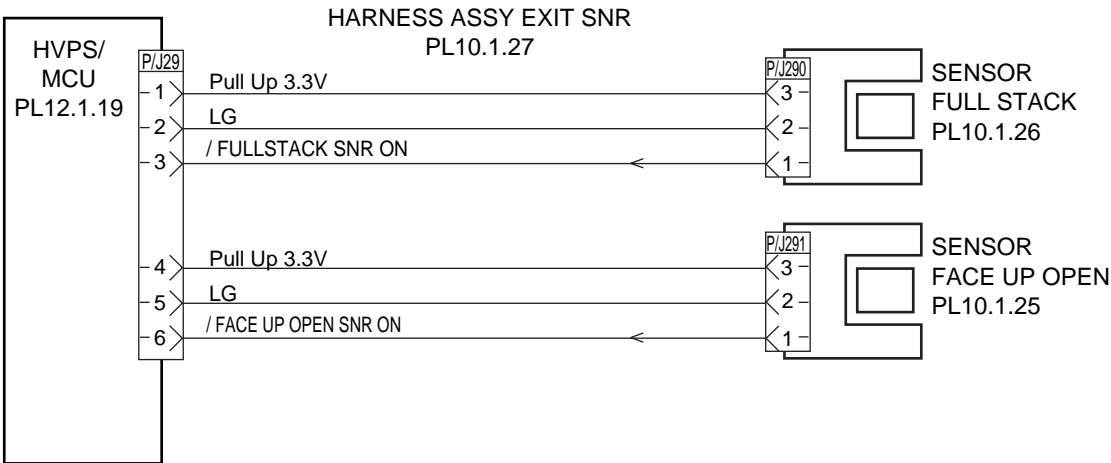
5 ROS ASSY 45-1200, INTERLOCK S/W 5V, HARNESS ASSY INTERLOCK3



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Signal line name	Description
/SOS	SYNC signal generated by SOS Sensor. This signal commands start of each scan.
/PCONT	Sample / Hold circuit Low: Sampled (LD is forcibly lit up); High: Held
Vref	Laser output control signal for determining or adjusting the current flowing through Laser Diode.
MO/DET-OUT	Laser output monitor signal for providing feedback of laser output beam from Laser Diode (analog signal).
/LDENB	Control signal permitting emission of Laser Diode. High: Laser Diode OFF.
XP DATA+	Print image data.
XP DATA-	
/ROSMOT ON	Sensor Motor Control signal for turning ON/OFF Scanner Motor. Low: ON / High: OFF
/ROSMOT CLK	Clock signal to ROS Motor.

6 500 Paper Exit

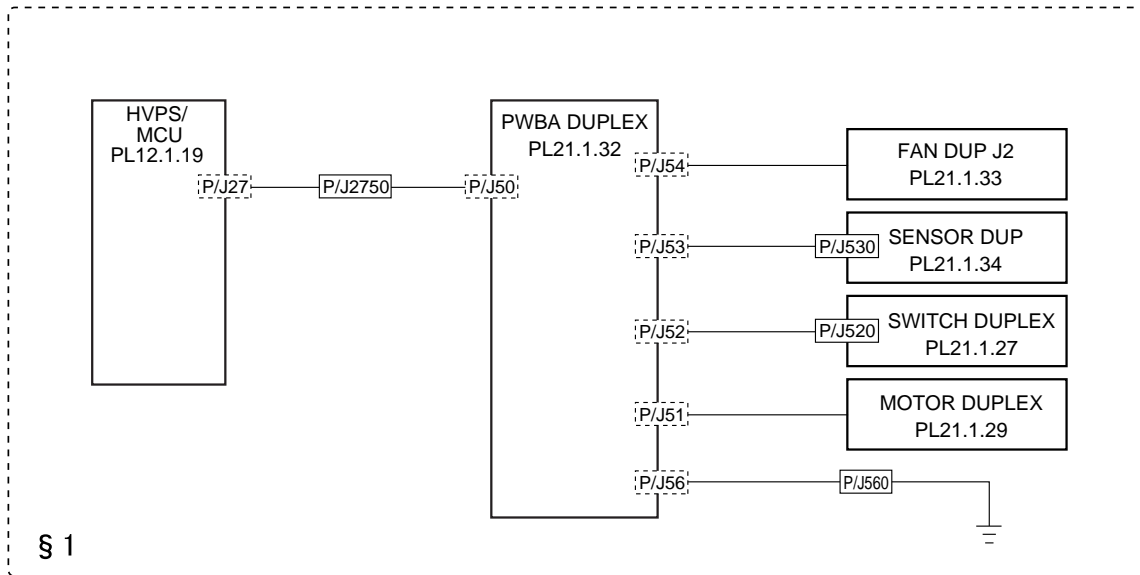


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Signal line name	Description
/FULLSTACK SNR ON	Signal from SENSOR FULL STACK. This signal goes Low when light is received.
/FACE UP OPEN SNR ON	Signal from SENSOR FACE UP OPEN. This signal goes Low when light is received.

Duplex Transport Option

2.1 Connection Wiring Diagram



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2.2 Configuration of the Interconnection Wiring Diagram of Parts

Option Duplex

Connections of HVPS/MCU with PWBA DUPLEX

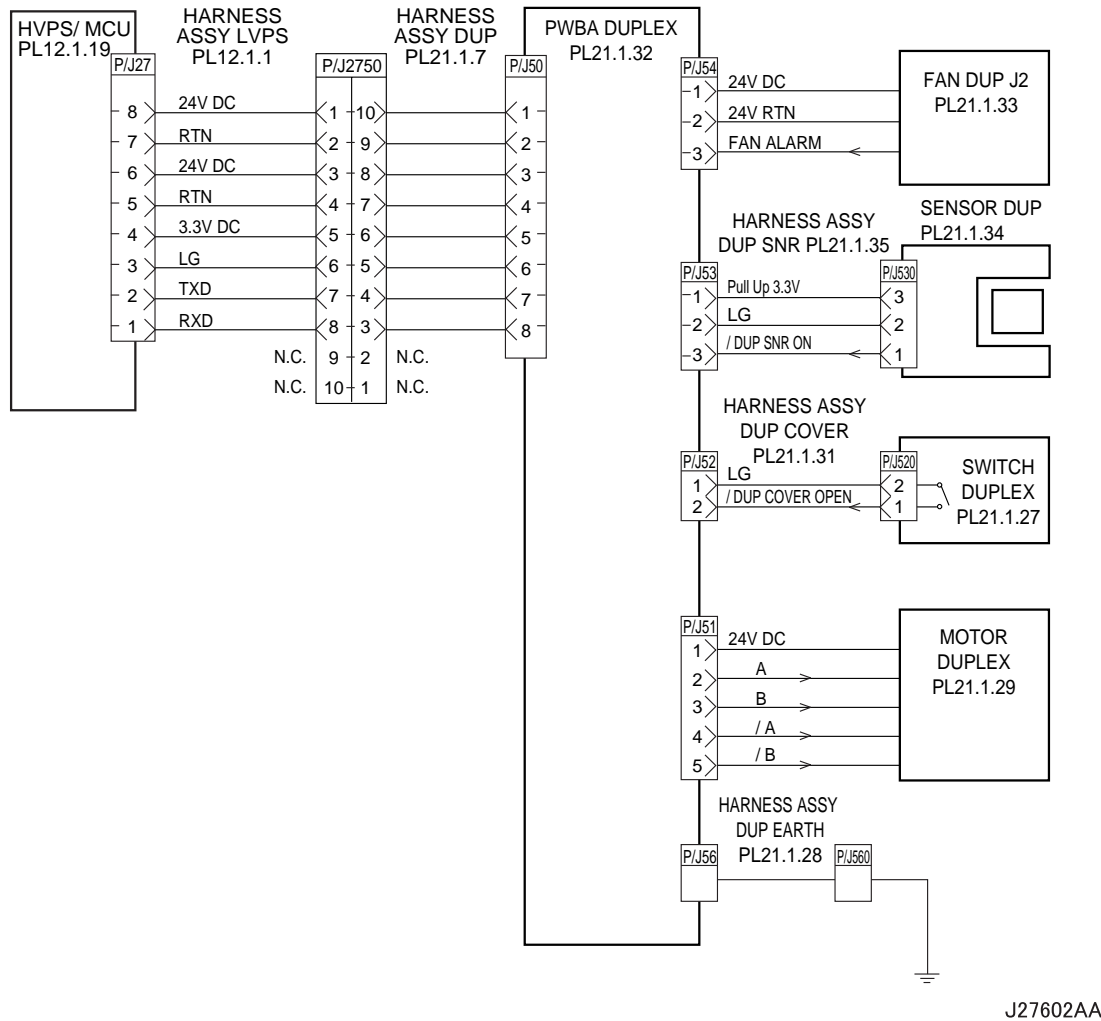
Connections of PWBA DUPLEX with FAN DUP J2

Connections of PWBA DUPLEX with SENSOR DUP

Connections of PWBA DUPLEX with SWITCH DUPLEX

Connections of PWBA DUPLEX with MOTOR DUPLEX

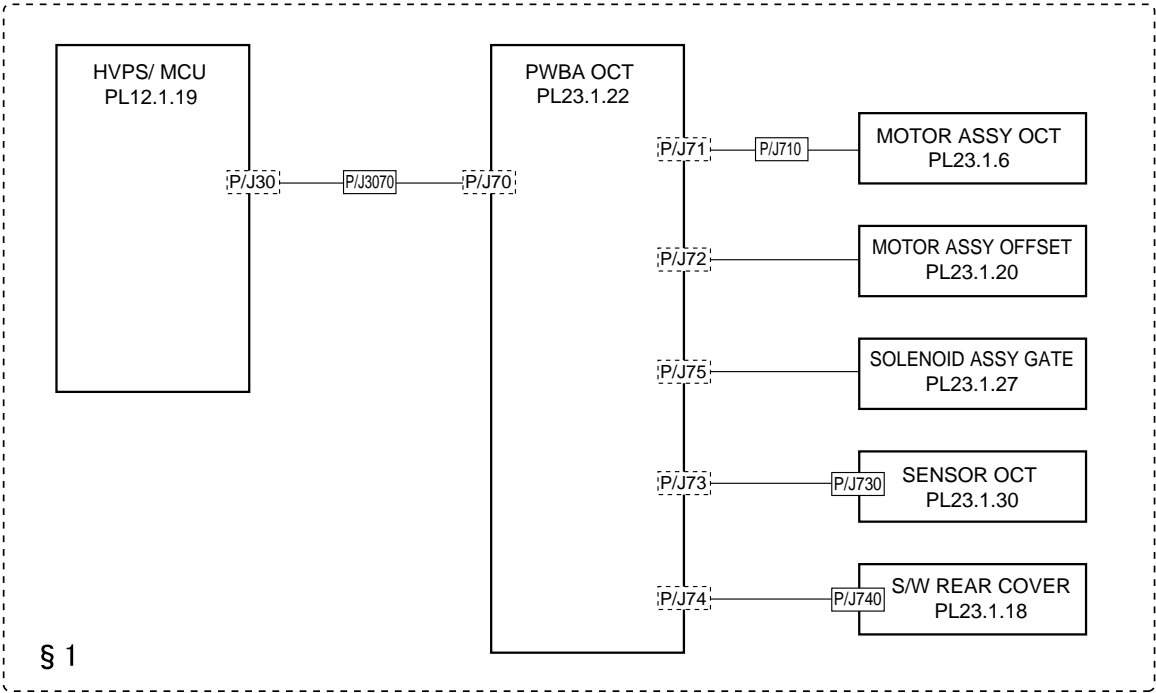
Option Duplex



Signal line name	Description
FAN ALARM	Fan monitor signal. This signal goes High if there is a trouble with FAN DUP J2.
/DUP SNR ON	Signal from SENSOR DUP. This signal goes Low when light is received.
/DUP COVER OPEN	Signal from SWITCH DUPLEX. This signal goes Low when the cover of Duplex (COVER HSG DUP) is closed.
A and B	Excitation signal for MOTOR DUPLEX. Phases A and B.
/A and /B	Excitation signal for MOTOR DUPLEX. Phases /A and /B.

OCT Option

2.1 General Wiring Diagram



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2.2 Configuration of the Interconnection Wiring Diagram of Parts

Option OCT

Connections of HVPS/MCU with PWBA OCT

Connections of PWBA OCT with MOTOR ASSY OCT

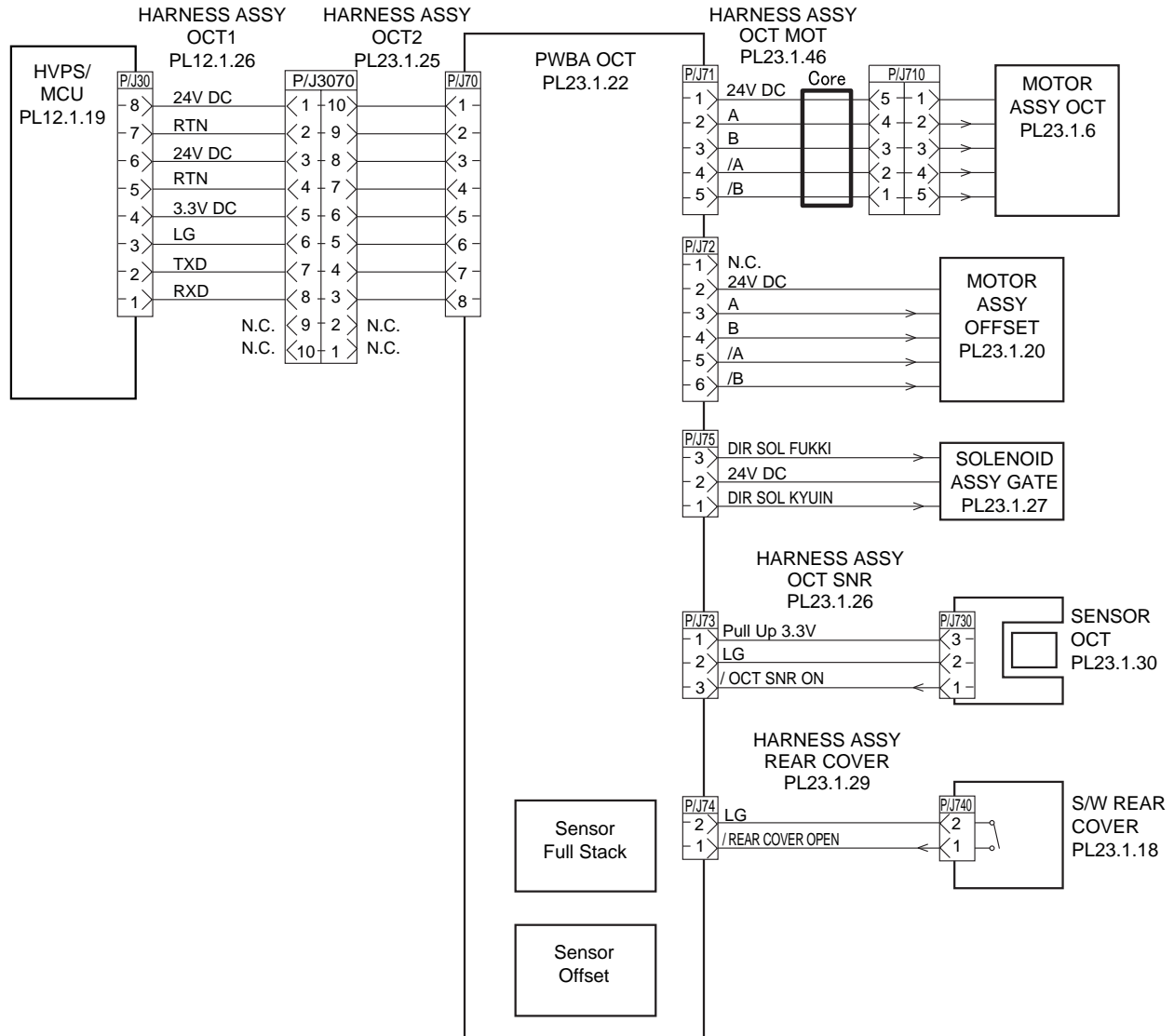
Connections of PWBA OCT with MOTOR ASSY OFFSET

Connections of PWBA OCT with SOLENOID ASSY GATE

Connections of PWBA OCT with SENSOR OCT

Connections of PWBA OCT with S/W REAR COVER

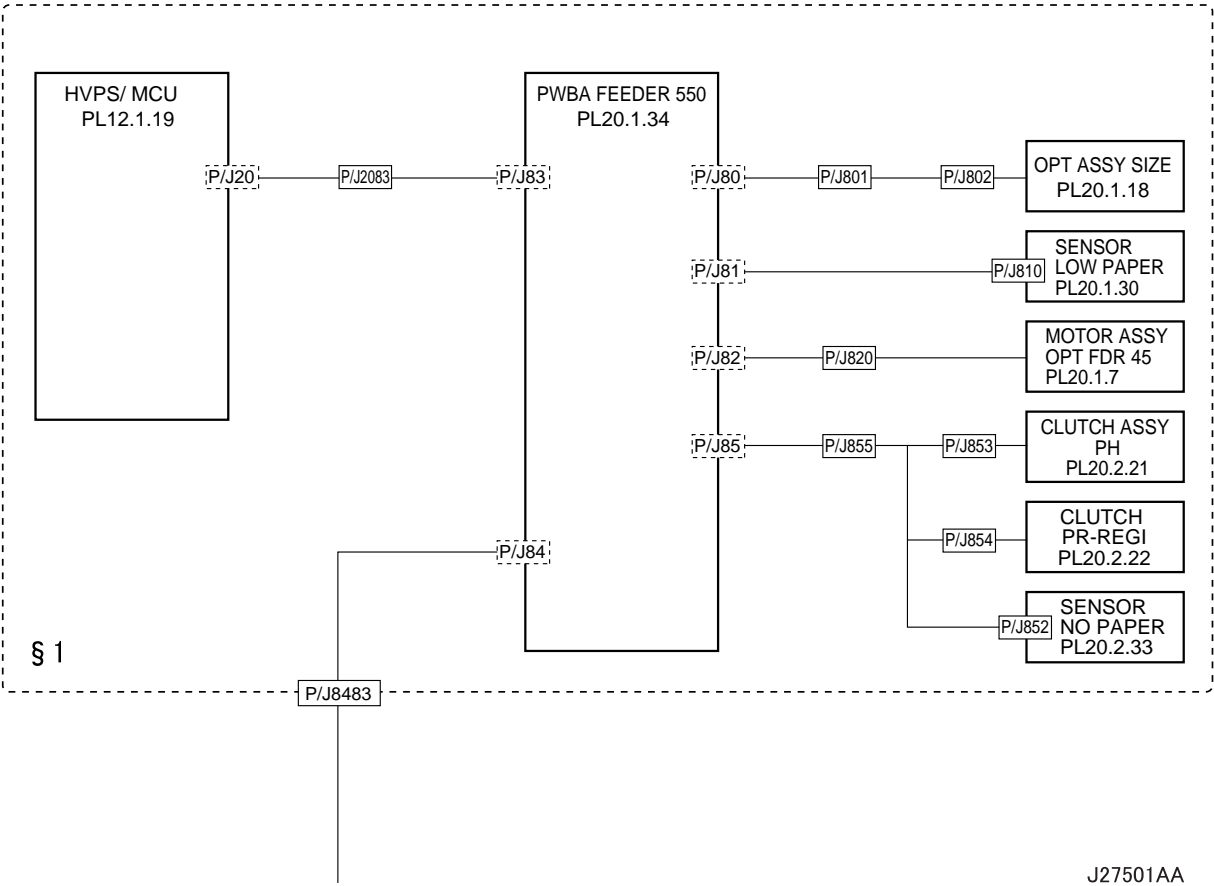
Option OCT



J27802AA

Signal line name	Description
A and B	Excitation signal for MOTOR ASSY OCT and MOTOR ASSY OFFSET. Phases A and B.
/A and /B	Excitation signal for MOTOR ASSY OCT and MOTOR ASSY OFFSET. Phases /A and /B.
DIR SOL FUKKI DIR SOL KYUIN	Control signal for SOLENOID ASSY GATE.
/OCT SNR ON	Signal from SENSOR DUP. This signal goes Low when light is received.
/REAR COVER OPEN	Signal from S/W REAR COVER. This signal goes Low when the rear cover of OCT (COVER REAR) is closed.

2.1 General Wiring Diagram



NOTE Option 550 Paper Feeder are connectable to two sets.

2.2 Configuration of the Interconnection Wiring Diagram of Parts

Option 550 Paper Feeder

Connections of HVPS/MCU with PWBA FEEDER250

Connections of PWBA FEEDER550 with OPT ASSY SIZE

Connections of PWBA FEEDER550 with SENSOR LOW PAPER

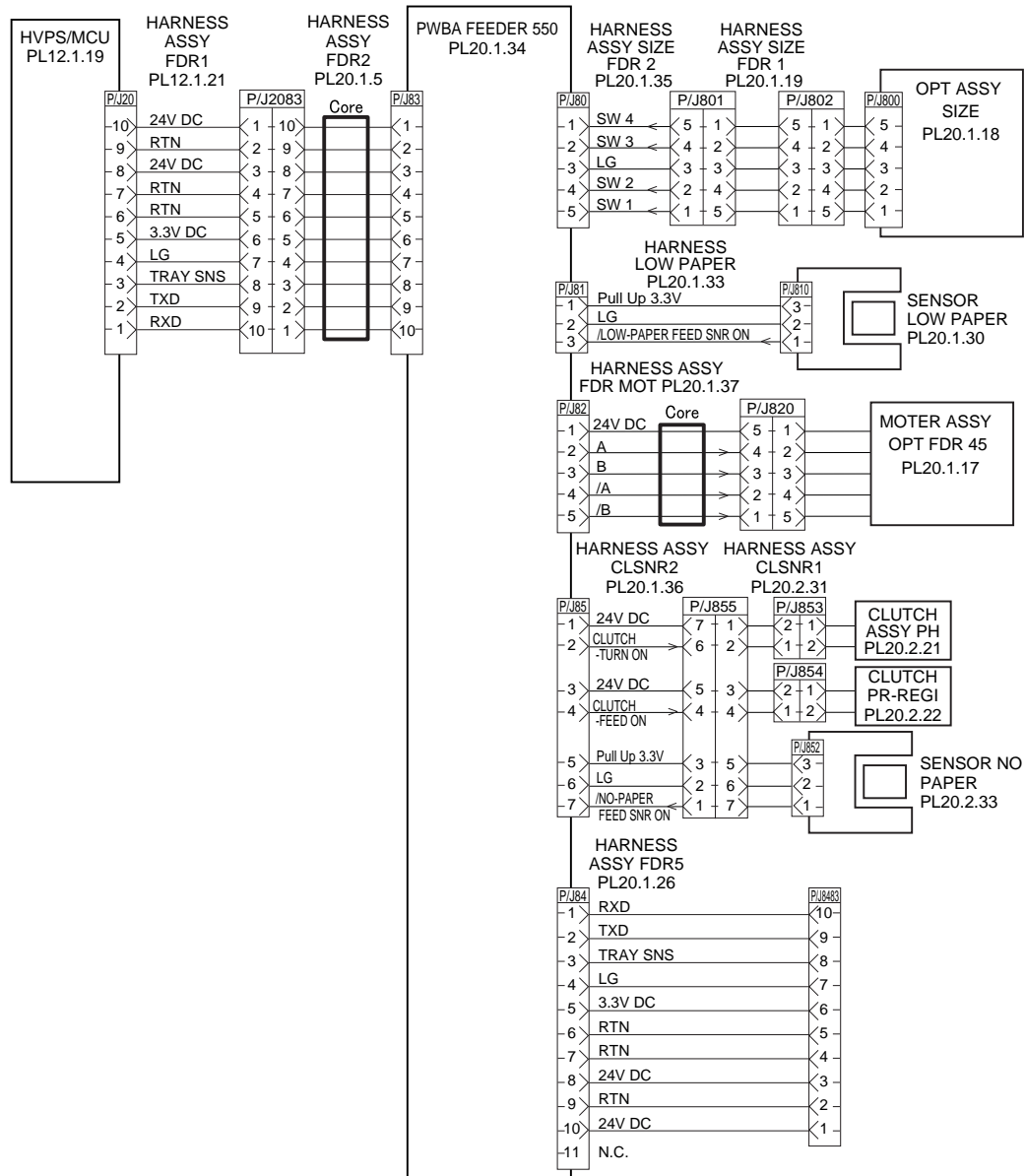
Connections of PWBA FEEDER550 with MOTOR ASSY OPT FDR 45

Connections of PWBA FEEDER550 with CLUTCH ASSY PH

Connections of PWBA FEEDER550 with CLUTCH PR-REGI

Connections of PWBA FEEDER550 with SENSOR NO-PAPER

Option 550 Paper Feeder



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Signal line name	Description
TRAY SNS	Signal detecting an Option 550 Paper Feeder. ID is recognized by the number of falling edges.
/LOW-PAPER FEED SNR ON	Signal from SENSOR LOW PAPER. This signal goes Low when light is received.
A and B	Excitation signal for MOTOR ASSY OPT FDR 45. Phases A and B.
/A and /B	Excitation signal for MOTOR ASSY OPT FDR 45. Phases /A and /B.
CLUTCH-TURN ON	Control signal for CLUTCH ASSY PH. Low: ON / High: OFF
CLUTCH-FEED ON	Control signal for CLUTCH PR-REGI. Low: ON / High: OFF
/NO-PAPER FEED SNR ON	Signal from SENSOR NO PAPER. This signal goes Low when light is received.

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Chapter 8 Printer Specifications

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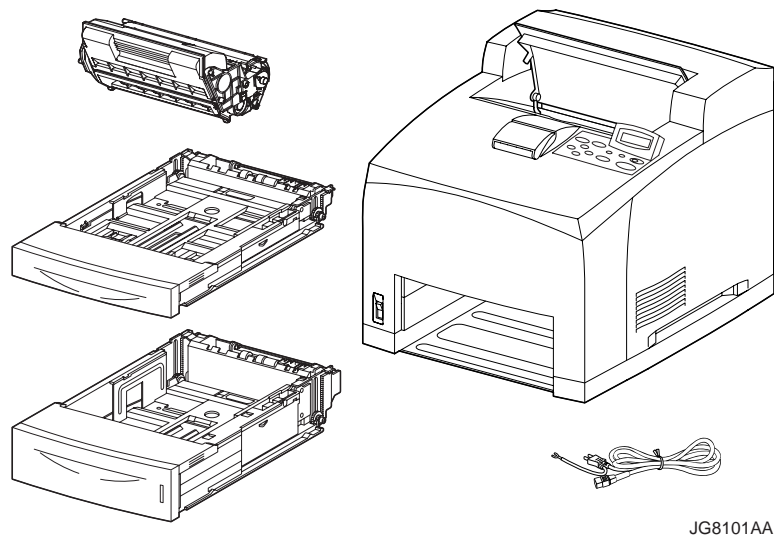
Chapter 8 Printer Specifications

Engine

1. Configuration of Printer

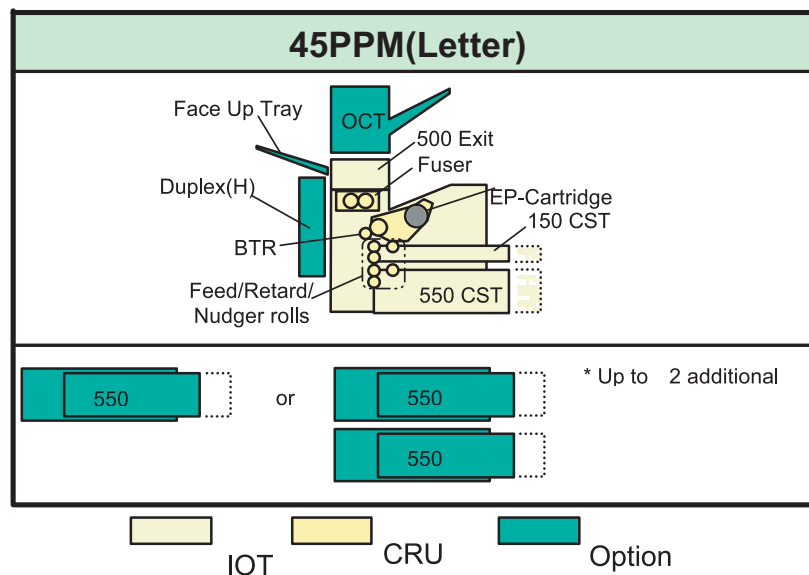
1.1 Basic Configuration

The basic printer consists of the print engine main unit, consumables (CRU), 150 Sheet Universal and 550 Sheet Universal Trays.



1.2 Engine Configuration with Options

Functional configuration of this printer is shown below.



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2. Electrical Properties

2.1 Power Source

Two types of power source as follows are available for this printer, which are selected according to the specifications.

2.1.1 For 120 VAC Printer

Voltage			Frequency		
Min	Nominal	Max	Min	Nominal	Max
98VAC	120VAC	132VAC	47Hz	50/60Hz	63Hz

2.1.2 For 220/240 VAC Printer

Voltage			Frequency		
Min	Nominal	Max	Min	Nominal	Max
198VAC	220/240VAC	264VAC	47Hz	50/60Hz	63Hz

2.2 Power Consumption

2.2.1 Maximum Power Consumption

Operation (+/- 10%)	Power Consumption	Electrical Current	Power Consumption		
			Low Power Mode 1	Low Power Mode 2	Sleep Mode ^{*5} (Fan Stop)
			Fan Low Speed	Fan Stop ^{*5}	
110 VAC	Maximum: 1210 W	Maximum: 12.2 A	Maximum: 16.5 W	Maximum: 6.5 W	Maximum: 3.5 W
220 VAC	Maximum: 1270 W	Maximum: 5.8 A	Maximum: 17.6 W	Maximum: 9.0 W	Maximum: 5.0 W

NOTE

1. No electrical current shall be supplied to the Fuser unit in Low Power Mode.
2. No electrical current shall be supplied to the Fuser / Fan / MCU unit in Sleep Mode.
3. Power consumption is without the Controller.
4. Specified with FX method.
5. The controller consuming current at low power mode 2 and sleep mode shall not exceed 1A @ 3.3V and 0.5A @ 5V.

2.2.2 Average Power Consumption

Input Voltage	Base w/OCT and Option Feeder		
	Standby	Simplex	Duplex
120 VAC	110 W	880 W	629 W
230 VAC	89 W	728 W	633 W

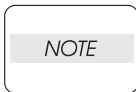
3. Mechanical Properties

Dimensions shall be specified with nominal values including dimensional tolerances of +/- 5mm and +/- 0.5 kg. The dimensions shall not include any of the local projections including a lever and a handle.

3.1 Print Engine Size and Weight (REF)

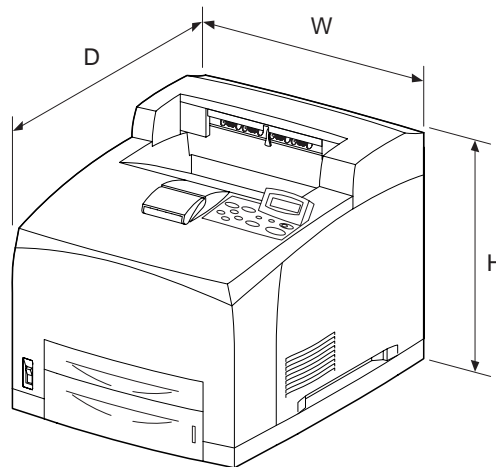
Configura- tion/Condi- tion	Configuration		Width (mm)	Depth (mm)		Height (mm)	Weight (kg)
	Input Tray	Exit		To A4/Letter	To Legal 14		
Unpacked (Note 2)	550	500	421.8	465.4	524.0	404.3	21.1
Packaged (Note 3)			570.0	554.0		590.0	27.3

The size and weight shall basically apply to the engine configuration.



:

1. These sizes exclude print engine's side and rear louver, a rear knob and top bump.
2. Unpacked: Neither an EP cartridge nor a controller shall be included.
3. Packaged: An EP cartridge shall be included.
4. Depth size is the condition which telescope by the paper size.

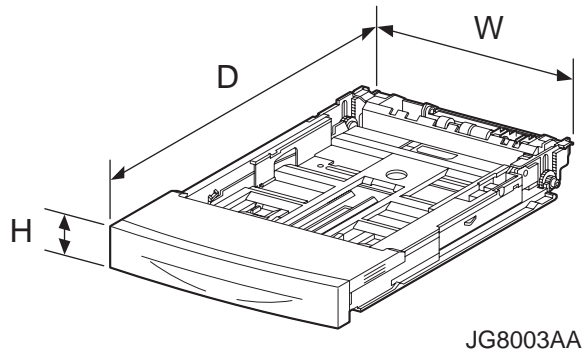


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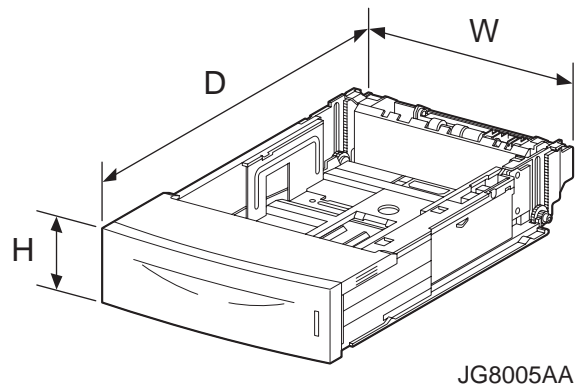
3.2 Media Input Tray Size and Weight (REF)

Configuration	Condition	Width (mm)	Depth (mm)		Height (mm)	Weight (kg)
			To A4/Letter	To Legal 14		
150 Tray	Unpacked	283.7	390.6	449.2	50.4	1.60
	Packaged	487.0	375.0		157.0	2.4
550 Tray	Unpacked	283.7	394.6	453.2	85.6	2.12
	Packaged	487.0	375.0		189.0	3.0

3.2.1 150 Tray



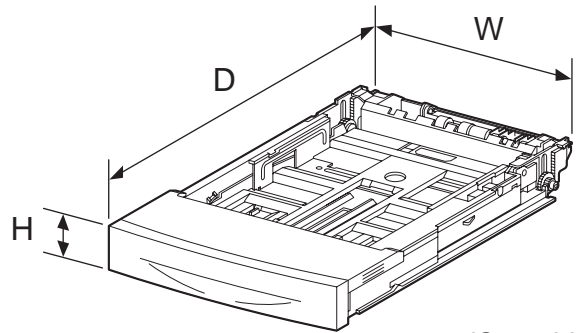
3.2.2 550 Tray



3.3 Media Input Tray/Deck (packaged in the same box), Size and Weight (REF)

Configuration	Condition	Width (mm)	Depth (mm)		Height (mm)	Weight (kg)
			To A4/Letter	To Legal 14		
550 Input Tray Feeder	Unpacked	421.8	451.6	510.2	143.0	6.3
	Packaged	551.0	541.0		252.0	8.5

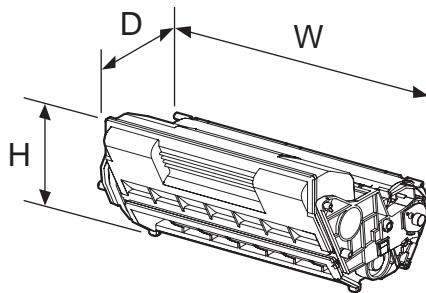
3.3.1 Media Input Tray/Deck



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3.4 EP Cartridge Size and Weight (REF)

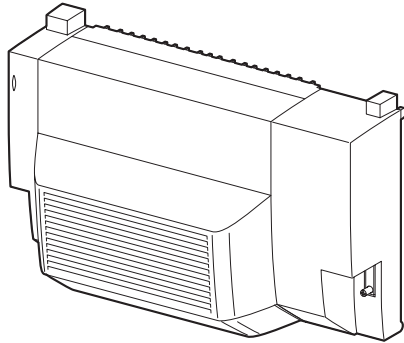
Condition	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)
Unpacked	298.5	177.4	159.0	1.96/1.70
Packaged	386.0	241.0	232.0	2.57/2.24



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3.5 Duplex Unit Size and Weight

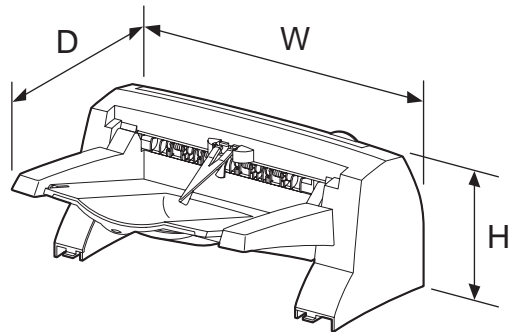
Condition	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)
Unpacked	351.7	146.2	238.0	1.9
Packaged	454.0	322.0	237.0	2.6



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3.6 500 Sheet Offset Catch Tray Size and Weight

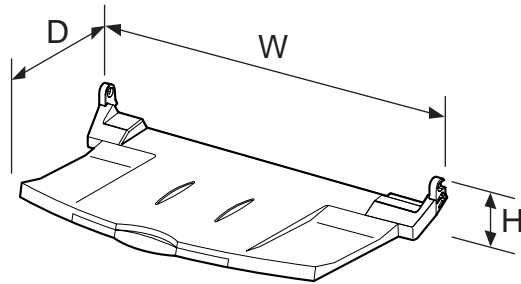
Condition	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)
Unpacked	417.8	312.5	226.4	2.6
Packaged	529.0	442.0	327.0	3.9



JG8801AA

3.7 Face Up Tray Size and Weight (REF)

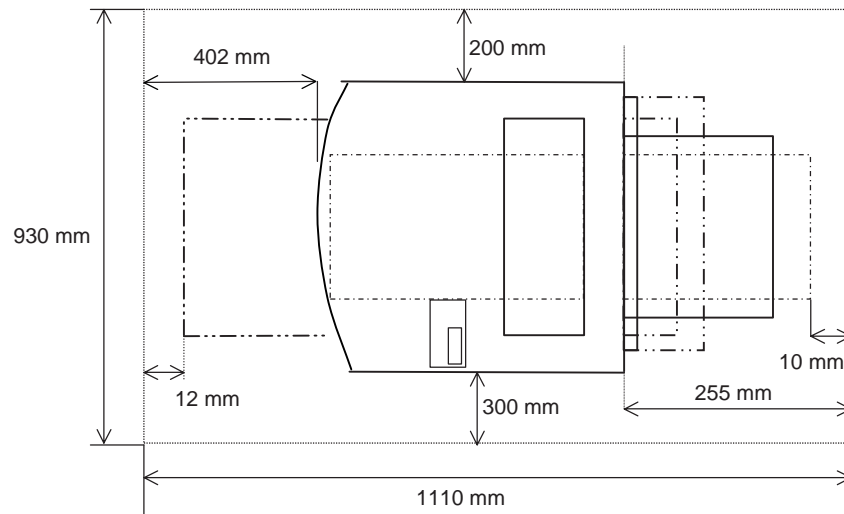
Condition	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)
Unpacked (Installation)	320.6	162.6	89.4	0.25
Unpacked (Simple)		169.6	43.0	
Packaged	360.0	200.0	95.0	0.6



JG8711AA

3.8 Minimum Space Requirements

There must be sufficient space around the print engine for proper access, ventilation and operation.



JG8103AA

4. Specification

4.1 Base Print Engine Specification

4.1.1 Printing System

Electro-photographic system (roller charging, single component magnetic toner development).

4.1.2 Exposure System

Semiconductor laser beam scanning system.

4.1.3 Transfer System

Roller transfer system.

4.1.4 Fixing System

Thermal fusing system by a heated roller.

4.1.5 Resolution

600 dpi or 1200 dpi (Dual laser beam, 600 dpi/1200 dpi switch-able at full engine speed).

4.1.6 Warm-up Time

The Print Engine shall reach a READY state within 17 sec maximum after the application of power as a nominal voltage (120V/220V).

NOTE : measured at 22°C.

4.1.7 First Print Output Time (FPOT)

The First Print Output Time (FPOT) shall be defined as the time from when the printer receives a START signal in the READY state, until a single page is printed and delivered into the output tray, under the scanning condition (Fuser Ready).

The following data are theoretical values without misfeed margin (0.2 sec.).

Configuration		Paper Size	Mode	Tray 1 (t sec)	Tray 2 (t sec)	Tray 3 (t sec)	Tray 4 (t sec)
Tray 2	Exit						
550	500	Letter SEF	Simplex	7.9	7.9	7.9	8.2
			Duplex	11.1	11.1	11.1	11.3
		A4 SEF	Simplex	7.9	7.9	7.9	8.2
			Duplex	11.2	11.2	11.2	11.4

NOTE :

1. SEF: Short Edge Feed
2. Duplex: 1 sht.Batch Mode
3. FPOT from sleep mode

Configuration		Paper Size	Mode	Tray 1 (t sec)	Tray 2 (t sec)	Tray 3 (t sec)	Tray 4 (t sec)
Tray 2	Exit						
550	500	Letter SEF	Simplex	24.9	24.9	24.9	25.2
			Duplex	28.1	28.1	28.1	28.3
		A4 SEF	Simplex	24.9	24.9	24.9	25.2
			Duplex	28.2	28.2	28.2	28.4

4.1.8 Continuous Print Speed

The following data are theoretical values for Input Trays 1,2,3 and 4.

Paper Size	Simplex/ Thin Paper Mode (ppm)	Simplex OHP Mode (ppm)	* ⁴ Simplex Thick Stock Mode1/ Label Mode (ppm)	* ⁵ Simplex Thick Stock Mode2 (ppm)	Simplex Thick Stock Mode3 (1/2 Speed) (ppm)	Duplex (ipm)	* ⁴ Duplex Thick Stock Mode1 (ppm)	* ⁵ Duplex Thick Stock Mode2 (ipm)
Letter SEF	45.1	22.4 (Target)	33.0 (Target)	13.1 (Target)	22.6 (Target)	27.2	24.7 (Target)	13.1 (Target)
A4 SEF	43.0	22.4 (Target)	33.0 (Target)	13.1 (Target)	21.5 (Target)	26.4	24.4 (Target)	13.1 (Target)
Legal 14"SEF	37.2 (Target)	-	33.0 (Target)	13.1 (Target)	18.6 (Target)	24.1 (Target)	23.4 (Target)	13.1 (Target)
Legal 13"SEF	39.5 (Target)	-	33.0 (Target)	13.1 (Target)	19.8 (Target)	25.0 (Target)	23.8 (Target)	13.1 (Target)
Executive	45.1 (Target)	-	33.0 (Target)	13.1 (Target)	22.6 (Target)	27.5 (Target)	24.9 (Target)	13.1 (Target)
B5 (JIS) SEF	45.1 (Target)	-	33.0 (Target)	13.1 (Target)	22.6 (Target)	27.7 (Target)	25.1 (Target)	13.1 (Target)
Envelopes	-	-	19.7 (Target)	13.1 (Target)	18.0 (Target)	-	-	-

NOTE

Notes:

1. The controller requires 2 pages of print buffer (one-batch mode) to achieve the duplex speeds.
2. Envelopes: Specified Com#10.
3. Print speed is a theoretical feeding out speed.
4. During consecutive running thick stock Mode 1, engine will go into fuser cool down mode*⁶ after every 50 impressions.
5. During consecutive running thick stock Mode 2, engine will go into fuser cool down mode*⁶ after every 30 impressions.
6. Fuser cool down mode means: Main motor stops scanner motor is spinning and main fan is working at high speed approximately 1 min.

4.1.9 Printable Area

The print engine shall be capable of producing printed images meeting the Print Quality Spec to within 4mm of the edge of the paper. Within the 4mm border, the print engine shall be capable of legibly printing 6 point Arial font or larger on baseline paper.

For Duplex side, the lead edge guaranteed border will be 6mm.

4.2 Media Feed Specifications

4.2.1 1st Media Input Tray (150 Sheet Universal)

The 1st Media Input Tray shall support the following media:

1. Media Size

- Width: 76.2mm (3.0 inch) ~ 215.9mm (8.5 inch)
- Length: 127.0mm (5.0 inch) ~ 900mm (35.4 inch)

2. Media Weight

- Qualified paper: 64gsm(17.1lb) ~ 216gsm(80lb)

3. Media Stack Capacity

- Baseline paper: 150 sheets (Xerox 4200 20lb Letter / RX 80 A4: 3R91720 / Fuji Xerox P A4)
- Other paper: Reference Media Stack Capacity
 - Standard paper: 17.5 mm maximum
 - Envelopes River series C5: 20 sheets (Max: 17.5mm) (Note 1)
 - Envelopes Columbian com10: 15 sheets (Max: 17.5mm) (Note 1)
 - Japanese Official Postcards: 55 sheets (Max: 17.5mm) (Note 1)
 - Transparency sheets: 100 sheets (Max: 11.9mm) (Note 1)
 - Labels: 100 sheets (Max: 17.5mm) (Note 1)
 - Thicker stock: 60 sheets (Max: 17.5mm) (Note 1)

This tray shall automatically sense the following 7 paper sizes when the End Guide is properly adjusted.

No.	Type	Size (mm x mm)	Weight
1	Letter SEF	215.9 x 279.4	(See Note)
2	Legal 14" SEF	215.9 x 355.6	
3	Legal 13" SEF	215.9 x 330.2	
4	Executive SEF	184.2 x 266.7	
5	A4 SEF	210.0 x 297.0	
6	B5 (JIS) SEF	182.0 x 257.0	
7	A5 SEF	148.0 x 210.0	

NOTE

:

1. The curl, diagonal curl or concave of Special Media shall be within 5mm.
2. Stack Height is specified with the Label on the Tray.
3. The flap is to be placed in the side edge; otherwise the flap is to be opened at the trailing edge. For this case, the opened flap is to be free of any paste or adhesive tape.
4. "No Paper Sensor" shall be available on this media tray as standard
5. Print quality on media up to 335.6mm (14.0 inch) long is guaranteed.

4.2.2 2nd Media Input Tray (550 Sheet Universal)

1. Media Size

- Width: 98.4mm ~ 215.9mm
- Length: 148.0mm ~ 355.6mm

2. Media Weight

- Simplex Mode: 64gsm (17.1lb) ~ 216gsm (80lb)
- Duplex Mode: 64gsm (17.1lb) ~ 216gsm (80lb)

3. Media Stack Capacity

- Baseline paper: 550 sheets (Xerox 4200 20lb Letter / RX 80 A4: 3R91720 / Fuji Xerox P A4)
- Other paper: Reference Media Stack Capacity
 - Standard paper: 59.4 mm maximum
 - Envelopes River series C5: 80 sheets (Max: 49.4mm) (Note 1)
 - Envelopes Columbian com10: 80 sheets (Max: 49.4mm) (Note 1)
 - Japanese Official Postcards: 200 sheets (Max: 49.4mm) (Note 1)
 - Transparency sheets: 100 sheets (Max: 12.4mm) (Note 1)
 - Labels: 290 sheets (Max: 49.4mm) (Note 1)
 - Thicker stock: 160 sheets (Max: 49.4mm) (Note 1)

This tray shall automatically sense the following 7 paper sizes when the End Guide is properly adjusted.

No.	Type	Size (mm x mm)	Weight
1	Letter SEF	215.9 x 279.4	(See Note)
2	Legal 14" SEF	215.9 x 355.6	
3	Legal 13" SEF	215.9 x 330.2	
4	Executive SEF	184.2 x 266.7	
5	A4 SEF	210.0 x 297.0	
6	B5 (JIS) SEF	182.0 x 257.0	
7	A5 SEF	148.0 x 210.0	

NOTE

- :
1. The curl, diagonal curl or concave of Special Media shall be within 5mm.
 2. Stack Height is specified with the Label on the Tray.
 3. The flap is to be placed in the side edge; otherwise the flap is to be opened at the trailing edge. For this case, the opened flap is to be free of any paste or adhesive tape.
 4. "No Paper Sensor" shall be available on this media tray as standard

4.2.3 Auxiliary Paper Deck (Option)

The Auxiliary paper deck may be installed on the printer to provide a 3rd or 4th 550 sheet input source. The Low Paper Indicator and No Paper Sensor shall also be included on the Auxiliary Paper Input Tray. Capability to load paper into a lower tray while the unit is printing on paper fed from an upper tray is available from the print engine.

Maximum Paper Stack Capacity

Three (3) types of paper tray combinations shall be available as shown below:

Combination	1st Tray (standard)	2nd Tray (standard)	3rd Tray (optional)	4th Tray (optional)	Total Capacity
1	150 sheets	550 sheets			700 sheets
2	150 sheets	550 sheets	550 sheets	-	1250 sheets
	150 sheets	550 sheets	550 sheets	550 sheets	1800 sheets

4.2.4 Duplex Unit (Option)

This unit is capable of printing on both sides of the paper.

1. Media Size

- Width: 88.9mm ~ 215.9mm
- Length: 139.7mm ~ 355.6mm

No.	Type	Size (mm x mm)
1	Letter SEF	215.9 x 279.4
2	A4 SEF	210.0 x 297.0
3	Legal 13" SEF	215.9 x 330.2
4	Legal 14" SEF	215.9 x 355.6
5	B5 (JIS) SEF	182.0 x 257.0
6	B5 (ISO) SEF	176.0 x 250.0
7	Executive SEF	184.2 x 266.7
8	Statement SEF	139.7 x 215.9
9	A5 SEF	148.0 x 210.0
10	1/3 A4 SEF	99.0 x 210.0
11	A6 Postcard	105.0 x 148.0
12	Japanese Postcard	100.0 x 148.0
13	US Postcard	88.9 x 139.7

2. Media Weight

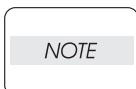
- 64gsm (17.1lb) ~ 216gsm (80lb)
- Duplex Mode: 64gsm (17.1lb) ~ 216gsm (80lb)

3. Media Stack Capacity

- Capability to duplex print from the cassette input is supported by the engine for the 13 paper sizes shown in the table above in 1 sheet batch mode.

Paper size except for the above 13 paper sizes is supported as a custom.

4.3 Paper Output Tray



: Paper shall be flipped over if the feeding performance does not meet with face side.

4.3.1 500 Sheet Face Down Output Tray

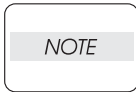
Under normal conditions (22°C, 55-60%RH), the print engine output tray has a capacity of 500 sheets of face-down output on the top cover, assuming the following paper. This applies to newly-opened paper which has been rested in the packaged condition for more than 12 hours in the operating environment.

- A4 (SEF): 500 sheets
- 20 lb Letter: 500 sheets

4.3.2 Face Up Output Tray (Option)

Under normal conditions (22°C, 55-60%RH), the print engine output tray has a capacity of 500 sheets of face-down output on the top cover, assuming the following paper. This applies to newly-opened paper which has been rested in the packaged condition for more than 12 hours in the operating environment.

- A4 (SEF): 500 sheets
- 20 lb Letter: 500 sheets



- :
- * Other Media: 10 mm maximum
 - * Supported paper size is:

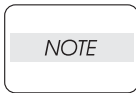
Width: 88.9 mm - 215.9 mm

Length: 127.0 mm - 297.0 mm

4.3.3 500 Sheet Offset Catch Tray (Option)

Under normal conditions (22°C, 55-60%RH), this unit has a capacity of 500 sheets of face-down output, assuming the following paper. This applies to newly-opened paper which has been rested in the packaged condition for more than 12 hours in the operating environment.

- A4 (SEF): 500 sheets
- 20 lb Letter: 500 sheets



- :
- This unit has the capability to offset the output job position in the output tray
 - * Supported paper size is:

Width: 88.9 mm - 215.9 mm

Length: 139.7 mm - 355.6 mm

4.4 Printing Media

4.4.1 Baseline Paper

- A4
- 20 lb Letter

4.5 EP Cartridge Specification

The EP Cartridge contains an OPC drum, a developing roller and blade, a primary charge roller, a drum cleaner, consumable memory device and the toner. The toner color shall be black.

4.5.1 EP Cartridge Life

Three EP cartridges are available for the print engine. The 6K EP cartridge shall have an average print life of 6,000 impressions on an average of 5% image coverage on Letter size paper. The 10K EP cartridge shall have an average of 10,000 impressions under the same conditions. The 17K EP cartridge shall have an average print life of 17,000 impressions under the same conditions.

Print life shall be defined as the number of impressions, with the print quality specified in section 10, without shaking the EP cartridge.

NOTE

: The life of EP Cartridge packed with a print engine shall be 6,000 impressions.

5. Environmental Specifications

5.1 Installation and Storage Requirements

5.1.1 Print Engine Installation Requirements: Unpacked condition, an EP Cartridge installed.

Condition	Temperature (°C)	Humidity (% RH)	Altitude (m)	Remarks
Operating	5 - 35	15 - 85	0 - 3,500	non-condensing
Non-operating	-20 - 40	5 - 85		

5.2 Acoustic Noise

Sound power shall be determined in accordance with ISO 7779 annex C (9 Positions Method, logarithm mean value).

*Standby mode:	5.00 B
*Low power mode:	5.00 B
*Sleep mode:	Only background noise (FAN OFF)
*Printing mode:	

Configuration	Specification LWA (B)
Base Engine	6.95 B
Base Engine with options (See Note 1)	7.50 B

5.3 Inclination

Errors shall not occur when the print engine is operated within an inclination of +/- 5°.

5.4 Illumination

Errors including minor print quality errors, shall not occur below 3,000 Lux (without direct sunlight)

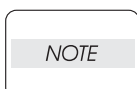
5.5 Dust Emission

The print engine shall not emit more than 4.0 mg/h.

Method: BAM RAL-UZ (Edition October 2003)

5.6 Chemical Substances

The print engine, including a photoreceptor and toner, shall not contain nor use for fabrication any ozone depleting chemicals or any PCB, PBDE, Trichloroethylene and Asbestos.



- :
1. PCB: Polychlorinated Biphenyl
 2. PBDE: Polybrominated Diphenyl Ether
 3. CFC: Chlorofluoro Carbons
 4. PBBO: Polybrominated Biphenyl Oxides
 5. PBB: Polybrominated Biphenyl

5.7 Pollution/Safety

The print engine shall meet the regulations (See Note 1). Under the normal operation, no smoke or fire shall be observed.

Mis-use by an operator or power problems shall not cause fire.

NOTE

1: See section for safety regulations.

5.8 Ozone Emission

The print engine shall not emit more than 2.0 mg/h.

5.9 Styrene/Benzene/TVOC

The print engine shall meet styrene, benzene and TVOC emission levels as set forth in BAM RAL-UZ 85 (Edition October 2003)

6. Regulatory Agency Approvals

The print engine shall meet the following regulatory specifications.

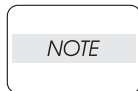
Printer configuration includes all paper handling options and a toner cartridge:

- 3rd / 4th Tray
- OCT
- Duplex
- Face Up Tray

6.1 Safety Specifications

6.1.1 For 120V/240V Type

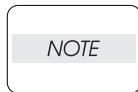
- UL60950-1, 1st Edition by National Recognized Test Lab (NRTL)
- CSA C22.2 No.60950-1-03 or equivalent
- FDA 21 CFR Chapter 1, Sub-chapter J, Section 1010, 1040 (Laser Safety Requirements)
- NOM



: The print engine shall meet the requirements. When the controller is installed, the OEM customer shall be responsible for the submittal of NOM.

6.1.2 For 220V/240V Type

- IEC 60950-1, 1st Edition
- IEC 60825-1 Class 1 Laser Product
- CE Directive (See Note 1)
- Nordic and other agency approvals (See Note 2)
- CCC



- :
1. The print engine shall meet the requirements. When the controller is installed, the OEM customer shall be responsible for the submittal of CE and CCC.
 2. The OEM customer shall be responsible for the Nordic agency approvals including NEMKO, SEMKO, SETI and DEMKO.

6.1.3 E.M.I. (Electro-Magnetic Interference) Specifications

The print engine and any combination of options shall meet the following Noise Terminal Voltage and Noise Field Intensity specifications up to 120 dpi with a Non-Modulated Pulse Width on specified "H" pattern.

120V Type (US): FCC Part 15 Subpart B, Class B (ANSI C63.4)

220/240V Type (EC): EN55022 (CISPR Publication 22), Class B, EN 55024
(1998) (CISPR Publication 24)

7. Reliability Specifications

The print engine shall meet the following specifications.



:

1. A single sheet shall be defined as two (2) impressions in the duplex mode.
2. Paper shall be flipped over if the feeding performance does not meet with face side.

7.1 MPBF (Mean Prints Between Failures)

MPBF: 300,000 impressions.

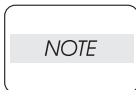
MPBF includes all input and output options. For the purpose of MPBF calculations the definition of “failure” shall be any failure where the print engine does not meet the performance specification.

This value does not include use induced errors. The following failures shall be excluded from failure count for MPBF.

1. Caused by operation or installation which does not conform to the instructions.
2. Caused by the use of media that is outside of the stated specification limits as represented by the Baseline, Standard paper and Special Media list.
3. Caused by operation outside the conditions defined in this specification.
4. Caused by use of parts which have gone beyond their stated life.
5. Recoverable failure following replacement of a toner cartridge.
6. Caused by a service engineer error or an error in their instructions.
7. Caused by premature failure (including transportation damage, mfg. defect, improper handling).
8. Caused by ESS controller and MCU firmware conflicts.

7.2 MTTR (Mean Time To Repair)

Average MTTR is expected to be within 15 minutes. 95% of the total repair jobs can be finished within 30 minutes. Failure diagnosis time shall not be included.



: These values are applied to an unpacked engine, not for an engine in a box. These values are for repairs performed by a trained service engineer.

7.3 Printer Life

7.3.1 Print Engine Life

The print engine life shall be 1,000,000 impressions (Letter SEF) or 5 years from the time the printer is installed (whichever comes first).

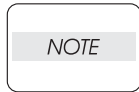
7.3.2 Paper Deck Life

The paper deck life shall conform to the print engine life (Section 7.3.1)

7.3.3 EP Cartridge Life

Three EP cartridges are available for the print engine. The 6K EP cartridge shall have an average print life of 6,000 impressions on an average of 5% image coverage on Letter size paper. The 10K EP cartridge shall have an average of 10,000 impressions under the same conditions. The 17K EP cartridge shall have an average print life of 17,000 impressions under the same conditions.

Print life shall be defined as the number of impressions, with the print quality specified in section 10, without shaking the EP cartridge.



: The life of EP Cartridge packed with a print engine shall be 6,000 impressions.

7.3.4 Duplex Unit Life

500,000 duplex sheets

7.3.5 500 Sheet Offset Catch Tray

1,000,000 impressions

7.4 Average Number of Printed Sheets (Monthly)

10,000 impressions

7.5 Maximum Number of Printed Sheets (Monthly)

200,000 impressions

8. Print Quality Specifications

Specification values described below are the values within 95% in-spec rate.

8.1 Print Quality Evaluation and Guaranteed Conditions

Print quality shall include print alignment, print density, uniformity, resolution and other items.

Unless otherwise indicated, the following are the guaranteed conditions in simplex mode and in duplex mode.

1. Environmental Conditions

- a) Guaranteed print quality environment “at installation” (1-500 impressions)

Temperature: 18° C - 27° C

Humidity: 20% RH - 60% RH

- b) Guaranteed print quality environment “as used” (501 - 6,000/10,000/17,000 impressions)

Temperature: 10° C - 32° C

Humidity: 15% RH - 85% RH

2. Guaranteed Paper

- a) Skew
- b) Perpendicularity
- c) Linearity
- d) Parallelism Accuracy
- e) Lead Edge Registration
- f) Side Edge Registration
- g) Magnification

8.2 Print Alignment

Item		Specification	Evaluation Length
Skew		+/- 1.2mm maximum	190mm
Perpendicularity		+/- 0.8mm maximum	114.5mm
Linearity	V	+/- 0.5mm maximum	234mm
	H	+/- 0.5mm maximum	190mm
	D	+/- 1.2mm maximum	269mm
Parallelism Accuracy		+/- 1.2mm maximum	234mm
Registration	Lead	+/- 2.0mm maximum	-
	Side	+/- 2.5mm maximum	-
Magnification	V	100 +/- 0.5%	234mm
	H	100 +/- 0.5%	190mm

Chapter 9 Controller/ESS Options Contents

Chapter 9 ESS Options

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Chapter 9 Controller/ESS Options Contents

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Chapter 9 ESS Options

1. ESS Options

1.1 ESS Configuration

The ESS has several options that can be installed to enhance performance:

- a. Hard Drive (HDD)
- b. Compact Flash (CF)
- c. Development Flash Card
- d. Single In-line Memory Module (SIMM) Card
- e. Network Interface Card (NIC)

2. Option Installation

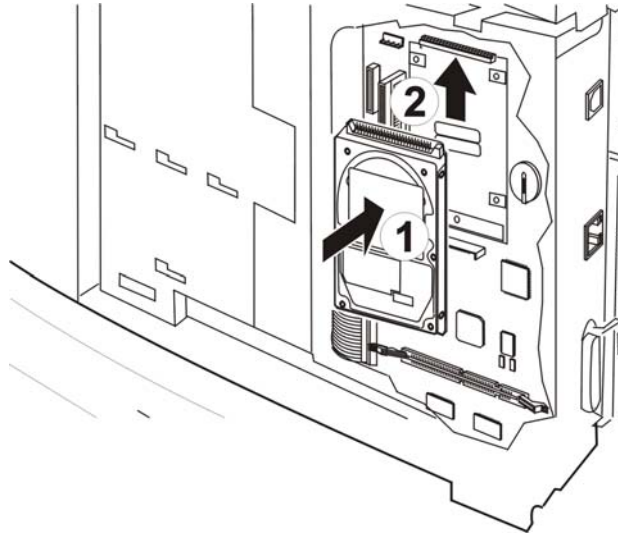
2.1 Installing the HDD

- 1) Turn the printer power OFF and remove the power cord from the outlet.
- 2) Remove the COVER RIGHT (RRP1.2) (PL1.1.4)
- 3) Remove the SHIELD ASSY WINDOW (RRP12.8) (PL12.1.15)

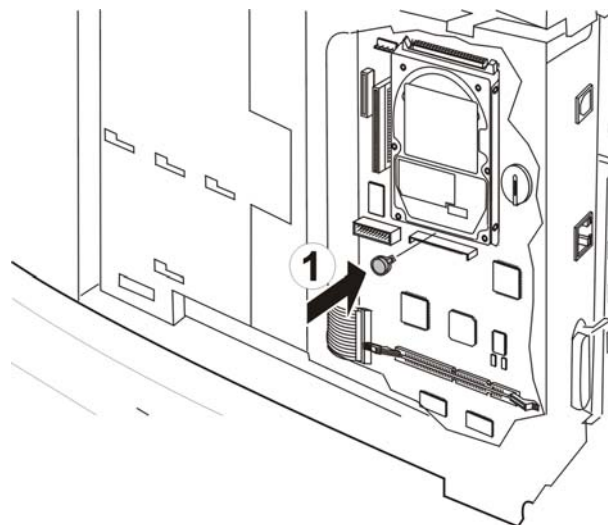
NOTE

In the step that follows take care when seating the device. The pins are fragile and can be easily damaged.

- 4) Seat the HDD in the ESS PWB (See figure below)



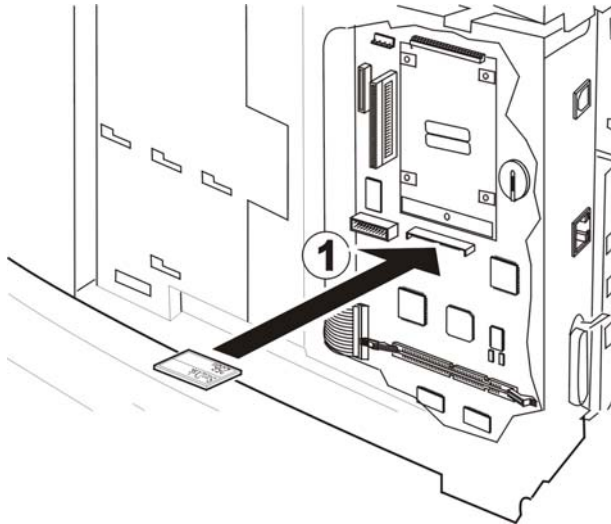
- 5) Push the latch into position to secure the HDD (See figure below)



- 6) Replace the SHIELD ASSY WINDOW.
- 7) Replace the COVER RIGHT.
- 8) Plug the power cord into the AC outlet and turn the printer power ON.

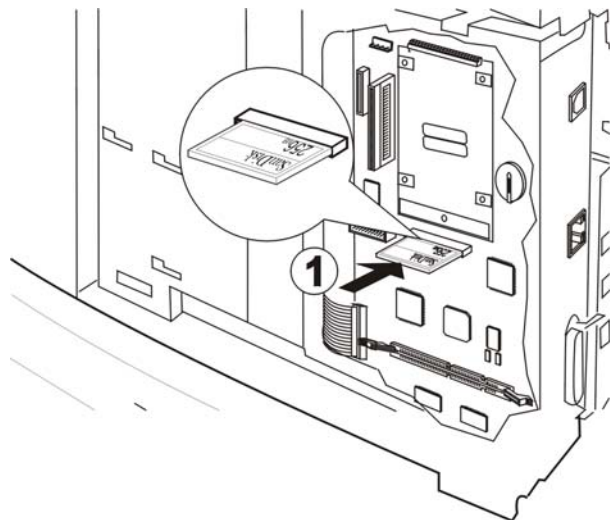
2.2 Installing the CF

- 1) Turn the printer power OFF and remove the power cord from the outlet.
- 2) Remove the COVER RIGHT (RRP1.2) (PL1.1.4).
- 3) Remove the SHIELD ASSY WINDOW (RRP12.8) (PL12.1.15).
- 4) Align the CF with the socket on the ESS PWB (See figure below).

**NOTE**

In the step that follows take care when seating the device. The pins are fragile and can be easily damaged.

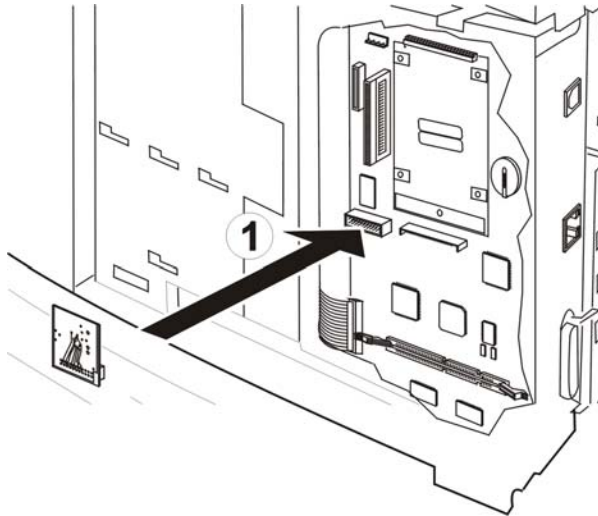
- 5) Carefully seat the CF in the socket on the ESS PWB (See figure below).



- 6) Replace the SHIELD ASSY WINDOW.
- 7) Replace the COVER RIGHT.
- 8) Plug the power cord into the AC outlet and turn the printer power ON.

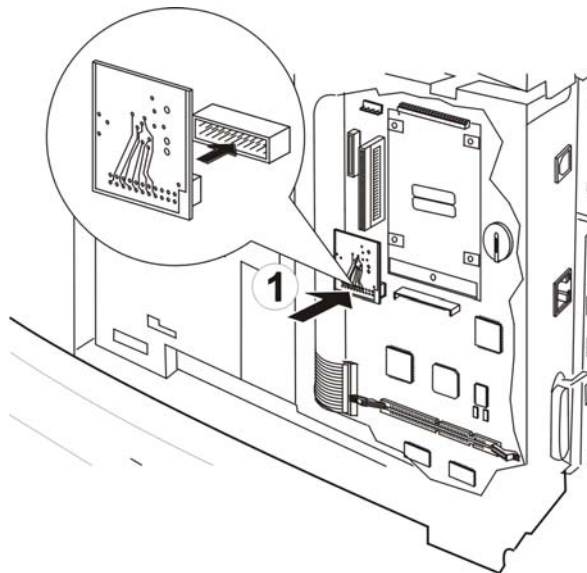
2.3 Installing the Development Flash Card

- 1) Turn the printer power OFF and remove the power cord from the outlet.
- 2) Remove the COVER RIGHT (RRP1.2) (PL1.1.4).
- 3) Remove the SHIELD ASSY WINDOW (RRP12.8) (PL12.1.15).
- 4) Align the Card with the socket on the ESS PWB (See figure below).

**NOTE**

In the step that follows take care when seating the device. The pins are fragile and can be easily damaged.

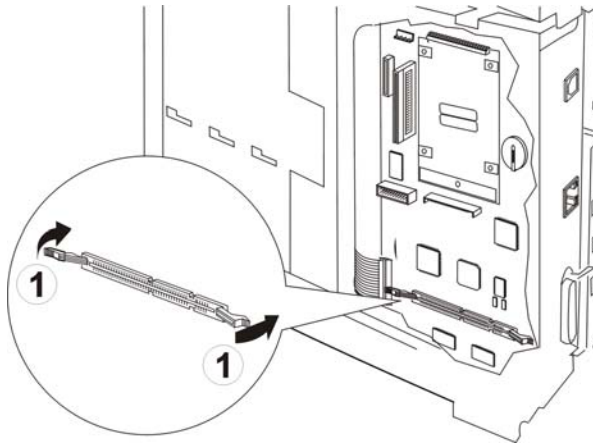
- 5) Carefully seat the Card in the socket on the ESS PWB (See figure below).



- 6) Replace the SHIELD ASSY WINDOW.
- 7) Replace the COVER RIGHT.
- 8) Plug the power cord into the AC outlet and turn the printer power ON.

2.4 Installing the SIMM Card

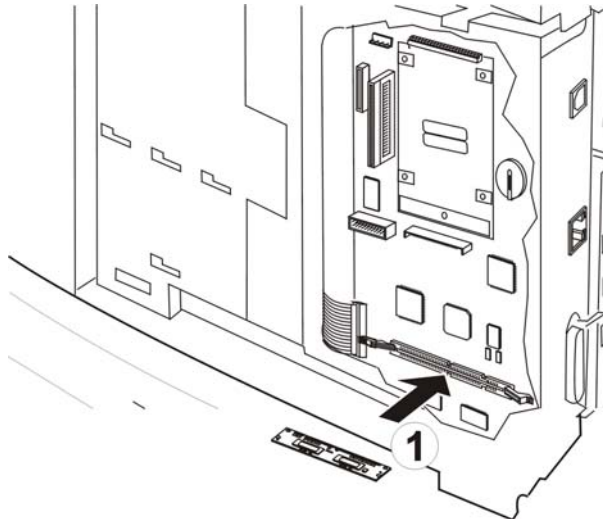
- 1) Turn the printer power OFF and remove the power cord from the outlet.
- 2) Remove the COVER RIGHT (RRP1.2) (PL1.1.4).
- 3) Remove the SHIELD ASSY WINDOW (RRP12.8) (PL12.1.15).
- 4) Release the latches on the SIMM Card socket (See figure below).



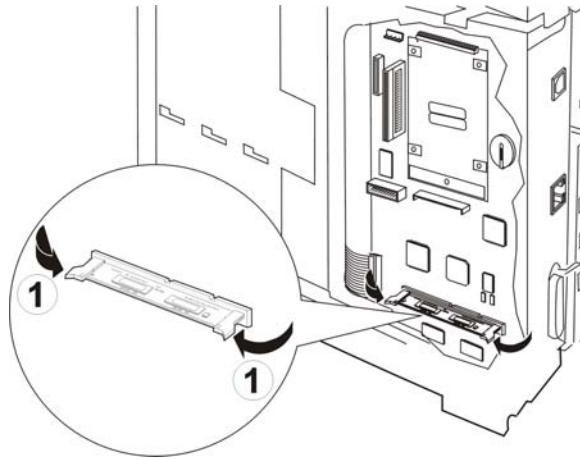
NOTE

In the step that follows take care when seating the device. The pins are fragile and can be easily damaged.

- 5) Carefully align the SIMM Card with the socket on the ESS PWB (See figure below).



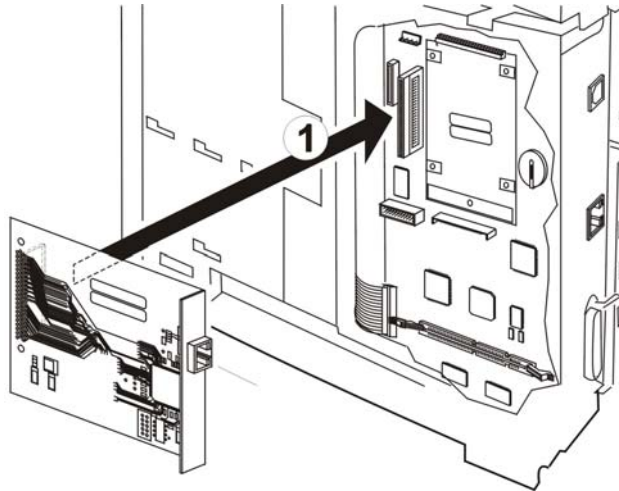
- 6) Seat the SIMM Card into the socket on the ESS.
- 7) Raise the latches on the SIMM Card socket firmly capturing the Card (See figure below).



- 8) Replace the SHIELD ASSY WINDOW.
- 9) Replace the COVER RIGHT.
- 10) Plug the power cord into the AC outlet and turn the printer power ON.

2.5 Installing the NIC

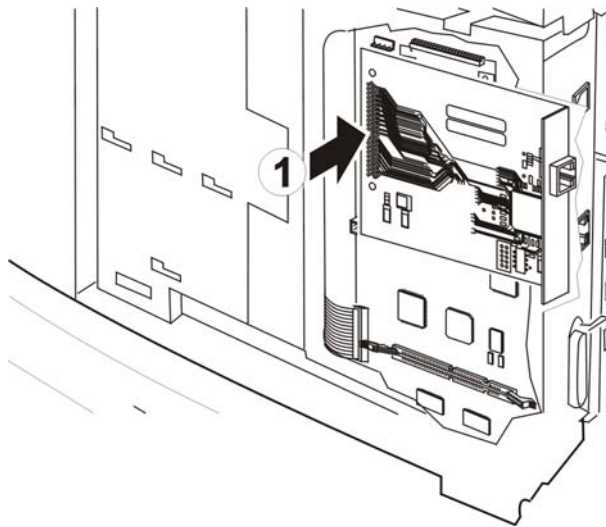
- 1) Turn the printer power OFF and remove the power cord from the outlet.
- 2) Remove the COVER RIGHT (RRP1.2) (PL1.1.4).
- 3) Remove the SHIELD ASSY WINDOW (RRP12.8) (PL12.1.15).
- 4) Align the NIC with the socket on the ESS PWB (See figure below).



NOTE

In the step that follows take care when seating the device. The pins are fragile and can be easily damaged.

- 5) Carefully seat the NIC in the socket on the ESS PWB (See figure below).



- 6) Replace the SHIELD ASSY WINDOW.
- 7) Replace the COVER RIGHT.
- 8) Plug the power cord into the AC outlet and turn the printer power ON.

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